

TWENTY-FIVE YEARS OF INDEPENDENCE
—A SURVEY OF INDIAN ECONOMY

COMMERCE ECONOMIC STUDIES—X

TWENTY-FIVE
YEARS OF INDEPENDENCE
—A SURVEY OF
INDIAN ECONOMY

Edited by
VADILAL DAGLI



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GROWTH FOR WHOM?

Is social justice compatible with growth? Should the poor wait till the challenge of growth is adequately met? Economic growth for whom? These are the issues which are likely to dominate the next 25 years of independent India. If the first 25 years of freedom witnessed a debate about the size of the national cake versus social justice, the next 25 years are likely to witness a rising demand for sharing the scarcity. If the size of the national cake cannot be enlarged, if the problem of poverty cannot be tackled immediately and if scarcity is going to be with us for some time, then let us all share it. If in the name of growth the standard of living of Western societies is introduced for the upper strata of Indian society, it would be irresistibly asserted that we would rather remain in the 19th century than permit a microscopic minority of the country to create an island of Western culture in the midst of an endless Sahara of medieval poverty.

There is no denying the fact that 25 years of freedom have been quite fruitful in the sphere of economic development. Industrial output during this period has increased nearly four-fold. Foodgrains output has nearly doubled. As a result, the real national income has doubled. But this has been accompanied by a major failure in respect of prices which have doubled during this period. Had we been able to maintain price stability the fruits of economic growth would have been more impressive. The growth of engineering and chemical industries has laid a solid foundation for economic self-reliance, which is also reflected in

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There is no denying the fact that 25 years of freedom have been quite fruitful in the sphere of economic development. Industrial output during this period has increased nearly four-fold. Foodgrains output has nearly doubled. As a result, the real national income has doubled. But this has been accompanied by a major failure in respect of prices which have doubled during this period. Had we been able to maintain price stability the fruits of economic growth would have been more impressive. The growth of engineering and chemical industries has laid a solid foundation for economic self-reliance, which is also reflected in

the structural changes that have taken place in our foreign trade. Despite the fact that the population has increased by nearly 55 per cent, the *per capita* real national income has increased by about 35 per cent.

Some real progress was thus recorded because of our decision to go in for bold planned economic development soon after the attainment of independence. This is why, I believe, the real day of Indian independence is not August 15, 1947, but April 1, 1951, when the First Five-Year Plan was launched. The Plans, above all, provided the strategy as well as the framework for growth, self-reliance and even social justice to some extent. In particular, the progress achieved in respect of science and technology has pushed Indian society almost to the threshold of industrial culture. This was all the more creditable because as the largest democracy of the world we were pioneering along an uncharted course.

We also took to the planned strategy of growth with a view to achieving in a few decades what Western societies were able to accomplish in a century and a half. The strategy did provide a measure of momentum to the Indian economy and the new dynamism was most visible in urban areas. However, there was something fundamentally lacking in this strategy of planning, which was outwardly patterned after the Soviet model but whose basic ingredients were those of the Western economies. This was inevitable partly because of the fact that we had planted the seeds of economic planning in the soil of parliamentary democracy which in its turn was super-imposed on a colonial economy. But was it, for instance, necessary to build up and develop the strategic financial institutions as if we had an unbridled *free enterprise* economy?

Some of the distortions that developed in our growth process could be partly traced to the fact that while our planning strategy was based on the Soviet model, the financial institutions continued to grow in the *laissez faire* fashion of Western societies. Is it then sur-

prising that even after three five-year plans commercial banks had remained mainly a five-metropolitan-city affair? Is it surprising that after 21 years of planning, the percentage of the population living on agriculture continued to remain unchanged at 70? Is it surprising that such high-sounding institutions as development banks served and continue to serve only the urban areas and even in urban areas only a few hundred entrepreneurs?

Our financial institutions do not seem to be aware of the existence of such vulnerable sections of our society as adivasis, harijans, landless labourers and village artisans. While our decision to transform the economy through five-year plans was a sound one, the planning strategy that we adopted was tilted in favour of those who were economically in a more advantageous position. The fruits of massive investments just fell on their laps like speculative windfall gains. And we suffered this miscarriage of both democracy and planning in the name of growth. If, of late, the word "growth" has come into disrepute it is because of these developments which transferred real resources from the relatively poor to the positively affluent.

We were also thrown into a predicament of misinvestments, which always led to perpetual misallocation of real resources in the name of continued growth and employment. For instance, we went ahead and set up factories for luxury goods and services and created a vested interest among the fortunate members of the working class in those industries. Plan after Plan, we were compelled to allocate resources, including foreign exchange resources, for the maintenance of those units for we thought that, if we now turned back, thousands of workers would be thrown out of jobs. This misallocation of resources must be stopped by boldly closing down industrial units and other establishments which serve the needs of only a small minority. Unless this is done our credibility regarding attempts to build India as a nation is in serious danger. To those in the villages who have no work for the best part of the year, to those in the villages

who do not get drinking water and have to trek miles and miles to get a pot of water and to those in the villages whose children always go to sleep half-hungry, the transfer of large economic resources to air-conditioning plants, synthetic fibre factories big airports modern hotels, skyscrapers, and an endless range of domestic gadgets and the like makes no sense at all Yesterday they suffered today they are bewildered Should we be surprised if tomorrow they decide to demolish the present economic fabric meant to serve only a few in the name of all?

Whether it is agriculture or industry or infrastructure or even scientific research the advantage has invariably gone to that segment of the power elite which holds the political levers of parliamentary democracy We were all delighted that a green revolution was successfully launched in some parts of the country But who benefited? It is symptomatic of the irrational process of our economic growth that as a result of the green revolution, the distance between the poor and the rich in the rural areas has further widened In the matter of industrial growth, the disparity between the urban industries and village industries has been intensified

As regards infrastructure, we go on lecturing the rural poor to donate labour for building up approach roads but spend most of the resources in maintaining the roads in metropolitan areas I know that we just do not have the resources to build all the approach roads in rural areas But I also know that the way we expand our cities leaves no other alternative but to spend a disproportionately large amount on urban roads In the event the villagers are getting more and more convinced that those in power are more concerned about the cars of the urban ruling class than about the bullock-carts of the poor farmers

The fundamental fact of the Indian economy today is that there is a microscopic but powerful minority which systematically diverts huge real resources that rightfully should go to the poor to building up, maintaining and ex-

panding modern facilities for the affluent. At a time when thousands of villages are without facilities of even drinking water after 25 years of freedom, to invest in modern airports and jumbo jets is an inexcusable waste of scarce resources. Even foreign aid has been consistently used to boost the living standards of this minority. Whatever is done, whatever is set up, is quickly converted into just another establishment to create a mini New York in this poorest land on earth.

I would concede that by merely ignoring the demands of the affluent minority for luxury goods industries and services, skyscrapers and modern airports, we will not solve the problem of poverty. I would also concede that despite technological facilities at our disposal, it may take another five to six decades to bring the rural poor to the present day level of our urban middle class. But the pangs of poverty would be cheerfully borne by the people if they are convinced that poverty, if inevitable, is being shared by all without any exception whatsoever. In Mao's China there is lack of modern facilities but no poverty. This has been made possible by such steps as providing the same type of food, clothing and housing for the top executive in a factory as well as the lowest worker—and both of them go home on their own bicycles. All those who argue that you cannot share the cake till it is made larger conveniently forget the fact that the relatively larger part of the cake which they enjoy also belongs to those who are excluded from the dining table.

If the analysis implicit in this discussion is accepted, it follows that the resources of financial institutions and commercial banks will also have to be diverted to supplement the plan efforts of the administration for the amelioration of rural poverty. If the governmental effort in this direction is decisively linked with the resources of financial institutions, a major departure will have been made in our developmental strategy in favour of those who remained out of its purview during the last 25 years. Just as the

financial targets of our five-year plans must be replaced by physical targets such as the number of new jobs created and the number of new wells dug so also our financial institutions must be given targets in terms of the number of adivasis harijans and landless labourers assisted

In this new shift distortions are bound to surface because of the organisational weakness of governmental and financial institutions. But that could be attended to if the old yardsticks are discarded and new yardsticks are introduced. Once the yardsticks are changed, the evaluation of the performance of planning agencies and financial institutions would be in tune with the realities of the Indian situation.

We often legitimately take pride in the fact that we have brought about significant structural changes in the Indian economy through planned efforts within the framework of parliamentary democracy. That ours is an open society is a matter of pride. Growth in a closed society is no better than luxury in prison. But if in an open society the destitutes get their security only in prison, then surely the vital difference between democracy and dictatorship disappears as far as the neglected majority of the people is concerned. So the issue before India during the next 25 years is to launch development plans mainly for the rural poor, particularly the adivasis and harijans who live no better than animals. For our developmental effort too the yardstick should now be the number of rural poor that are helped to move above the poverty line. We must lay down clearly that the basic target of our Plans should be to provide normal, gainful employment to the poorest 20 per cent of rural India.

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DEVELOPMENT STRATEGY, PLAN PROCESS AND POLICIES

By V. V. Bhatt

The Indian development strategy evolved after a few years of the initiation of planned development and was embodied in the Second and the Third Plans.¹ As a broad strategy, it was quite appropriate to the Indian circumstances. However, the strategy was formulated without much regard to the choice possibilities either over time or at a point of time. The project formulation and selection process as a result became somewhat arbitrary. The resulting imbalances and inefficiencies were further aggravated by deficiencies in the technique of planning and in the actual operation of policies which suffered from lack of co-ordination as well as meaningful operational link with development objectives.

1. Development strategy

The major element of development strategy as it evolved since 1954 was the emphasis on the rapid expansion of the productive power of the economy. This would obviously depend, **in a closed economy**, on the proportion of investment devoted to sectors which increase the capacity for further production—that is, to the production of “machines to make machines”. It was thus that the heavy and capital goods industries received the major attention

1. Government of India, Planning Commission, *Second Five Year Plan*, New Delhi, 1956 and *Third Five Year Plan*, New Delhi, 1961.
TY-1

from the point of view of raising the capacity of the economy to create productive power.²

However, conceptually in an economy with trade possibilities, productive power can be raised indirectly through foreign trade.³ Machines can be imported against the export of other commodities. Growth in export-oriented industries can serve the same purpose as the growth of capital goods industries. This possibility was not recognised in the Indian strategy initially and later on when it was recognised in the Third Plan, the assumption was made that Indian economy did not have substantial export possibilities.

2 For a detailed presentation as well as justification of this strategy see the following in addition to the Second and the Third Plans

(1) Mahalanobis P C, *Some Observations on the Process of Growth of National Income* Sankhya, September 1953, *The Approach of Operational Research to Planning in India*, Sankhya, December 1955, *Industrialisation of Under developed Countries—A Means of Peace*, Bulletin of Atomic Scientists, Vol XV, No 1, January 1959 and *Science and National Planning*, Sankhya, September 1958

(2) Little I M D, *The Strategy of the Indian Development* in *Economic Review* National Institute of Economic and Social Research London May, 1960

(3) Reddaway, W B, *The Development of the Indian Economy*, London 1962

(4) Bhatt, V V, *Aspects of Economic Change and Policy in India*, Bombay 1963

(5) Dobb, M H *Some Aspects of Economic Development*, p 51 quoted in Myrdal Gunnar, *Asian Drama*, Vol II, p 1166

For a critical appraisal of the strategy see—

(1) Bhagwati J and Chakravarty S, *Contributions to Indian Economic Analysis A Survey*, American Economic Association Supplement to American Economic Review, September 1969

(2) Bhagwati and Desai *India*, Oxford, 1970 Chs 6, 12

(3) Brahmananda P R. and Vakil, C N, *Planning for an Expanding Economy*, Bombay, 1955

(4) Gadgil, D R, *Planning Without a Policy Frame* Economic and Political Weekly, Annual Number, February, 1967, pp 253 264

(5) See Myrdal, Gunnar, *Asian Drama*, Pelican Books, 1968 Vol II pp 1159 to 1172

3 Lange, Oscar, *Economic Development, Planning and International Co-operation* Cairo, 1961, pp 11-12

In actual operation, thus, the major choice problem was not recognised. Even if, initially, export possibilities were limited, in a dynamic context, new ones would emerge and the actual selection of capital goods industries should have taken this possibility into account. For, even among the capital goods industries, there is a choice problem with regard to the type of machines that should be produced initially while the others are imported as also with regard to the time-phasing of the development of various capital goods industries in the light of the social time preference and the emerging trade possibilities. As these choice problems were not recognised, the actual operation of the strategy resulted in a bunching of capital goods projects and an inefficient formulation and selection of actual projects. In fact, both aspects were mutually related and both were the result of inadequate appreciation of the choice possibilities.

It was not recognised that available resources with regard to managerial talents, skilled personnel, the productive power and foreign exchange were limited and a rational choice of projects was essential. The result was inordinate delays in execution due to various bottlenecks and poor performance of the projects taken up. In fact the steel plants and the heavy industries projects taken up during the Second Plan have still not emerged from this phase and their actual output is much below capacity.

The actual project selection process was itself defective. The technical formulation of the projects was incomplete, their management set-up was not examined and their economic viability was not properly appraised. In some cases, even the selection of location was not proper. Further, when three projects with regard to steel plants were taken up during the Second Plan, not much thought was given to co-ordinating their requirements relating to standardisation of construction design and parts; such standardisation would have been indeed economical. Some of the

projects selected and implemented have been studied in detail. For example, with regard to projects like Heavy Electricals Ltd Bhopal and four component projects of Heavy Engineering Corporation at Ranchi it has been found that the internal rate of return works out to only 1 to 3 per cent per annum. This examination has also revealed that project formulation and appraisal were inadequate and inefficient.⁴

The other projects whether in the public or the private sector also suffered from similar defects. In principle, all projects of certain size require clearance from the Government via industrial licensing. However, as will be seen later, since no criteria for selection were formulated in the light of plan objectives the actual issue of licence was decided on the basis of ad hoc considerations without ensuring even a detailed project report indicating its technical and financial viability. The production targets as laid down in the Plan have been the only indicators used along with considerations other than sound economic criteria.⁵

Even in terms of strategy, there were two vital requirements that were not met. One concerns the development of native design and engineering ability and other, the forging of a direct link between technological research and development. For increasing the productive power of the economy these two are as vital as the development of capital goods industries.

Most of the projects have been formulated with the assistance of collaborators from abroad and no serious attempt was made at laying the foundation for the development of native design and engineering capacity in certain appropriate fields excepting fields like atomic power.

4 See Bhagwati and Desai *op cit* pp 158-160 and Little, Ian Scitovsky, Tibor and Scott, Maurice *Industry and Trade in Some Developing Countries* Oxford, 1970 pp 423-427.

5 *Fourth Five Year Plan A Draft Outline* August 1966 pp 25 to 29.

Policy has now changed and a new emphasis on these two aspects of development has been placed.⁶

Agricultural strategy

Along with the emphasis on building the development potential, the strategy visualised that the current consumption needs would be largely met through productive capacities already available and the use of traditional techniques and skills. However, even with regard to a basic commodity like foodgrains, no systematic thought was given to the adequacy of the growth rate for foodgrains for the purpose of meeting the growing demand. The instruments that were relied upon for the purpose were extension of irrigation, agricultural extension and community development programmes. These instruments proved inadequate for the task and food imports became necessary on a large scale.

The major emphasis should have been on research and technological break-through along with institutional change appropriate for creating the right motivation for agricultural development. The need for a technological break-through has been realised since 1964-65 with the adoption of the new agriculture strategy—a package programme in **selected** areas for the improvement of agricultural output. The major emphasis has been on improved varieties of seeds through research and the use of such high-yielding seeds along with fertilisers, water, skills, labour and pesticides.

This strategy has shown striking success in the case of wheat and some success has also been attained in the case of jowar, bajra and maize. Paddy has proved difficult but some new varieties evolved seem to be very promising. With regard to other important commodities like pulses, raw cotton, raw jute and oilseeds, there has not been much success so far in evolving the right type of seeds. Further, research in dry farming is of crucial significance as more

6. *Ibid.*

than three-fourths of the cultivated area has no assured irrigation facilities or rainfall'

Anyway, a right foundation has been laid—a foundation that has linked research with education, extension work and actual agricultural operations. At the same time an institutional framework has been created for the adequate and timely supply of inputs like fertilisers, pesticides and water and the provision of credit and marketing facilities. Further, remunerative prices have been assured to the farmers so as to make agriculture a commercially viable and attractive proposition.

If the momentum gained is sustained, the agricultural sector may not prove a constraint on general development. Of course, fluctuations in output due to vagaries of the monsoon would continue as only 20 per cent of the area has been irrigated and the new strategy can operate only in such areas. However, the amplitude of fluctuations may be progressively narrowed. Anyway, there is an urgent need for a sound buffer-stock policy with regard to foodgrains and the other agricultural commodities and such a policy presupposes a sound distribution network. Such a network at present does not exist particularly for the vulnerable sections of the population in rural and semi-urban areas. A buffer-stock policy and a distribution system are urgently necessary for smoothening and accelerating the process of development.

Moreover, new problems are likely to arise in the field of transport, marketing and storage facilities. Further, it would be necessary to create conditions favourable for the adoption of the new strategy by the small farmers, some of them indeed have adopted it but unless some sort of insurance against risk of failure is provided and adequate

7 On the new agricultural strategy see Yudelman Montague, *The Green Revolution in the OECD Observer*, June 1971, Dantwala M.L., *From Stagnation to Growth*, Indian Economic Journal, December 1970 and Mukherjee P.K. and Lockwood Brian, *High-yielding Varieties Programme*, Yojana May 16 1971, Delhi. A number of studies on the subject have been published in *Economic and Political Weekly* in 1970 and 1971.

credit and input facilities are assured, they may not be able to adopt it. The new strategy has made a small farm viable and this would tend to reduce rural disparities. However, evidence at present shows widening disparities as a result of unequal distribution of land. A reform of the institutional structure is essential now that such a reform has become a practical proposition as a result of the new strategy.⁸

Employment aspect

The development strategy has visualised that it would be possible to attain full employment of the available labour force not absorbed by modern industries in the traditional sectors which were supposed to meet the demand for basic consumption goods. Here again this aspect of strategy was not translated in terms of actual projects or project complexes and the expectation did not materialise. It is now realised that even if the modern sector grew at the expected 8-10 per cent per annum rate, it would not be able to absorb productively and at a certain minimum standard of living the growing labour force.

The new agricultural strategy itself has opened out possibilities of productive employment. This new technology, it has been estimated, increases the demand for farm labour by 30 per cent per hectare.⁹ But mechanisation can possibly reduce labour demand by about 17 to 27 per cent per hectare. From the employment point of view, therefore, it would be necessary to place a ceiling on the size of holding of a household so as to prevent indiscriminate capital-intensive mechanisation not essential for the growth of agricultural output. A special machine technology for small-scale agriculture needs to be developed.

Apart from agriculture proper, there are a wide variety of projects related to agriculture that need to be implemented from the points of view of employment, nutrition

8. See Dantwala, *op. cit.*

9. The OECD Observer, *op. cit.*

as well as general improvement of the standard of living of the lowest strata of population. Land levelling and development, consolidation of dispersed holdings, minor irrigation, construction of field channels for irrigation purposes—these are projects which are essential for agricultural development as well as employment. Further, there is indeed vast scope for activities like animal husbandry, dairying, poultry farming, fisheries, piggeries, horticulture and forestry, these are the activities for which traditional skills are available and what needs to be done is to upgrade these skills, integrate research with the creation of development opportunities in these fields and develop an institutional framework for the provision of inputs, marketing facilities, power and transport.

These possibilities are recognised in the Fourth Five-Year Plan and several schemes have been evolved for the purpose like the small farmers' development agencies, rural works in drought prone areas, marginal farmers' and landless labourers' schemes, and other employment schemes.¹⁰ But these schemes still are not properly formulated and translated in terms of concrete projects, it is only then that their employment as well as output potential can be examined. It is essential that all schemes for the purpose are properly inter-linked and an integrated plan of action is evolved at a district level. These schemes, further, need to be co-ordinated with rural electrification programme and the lead bank scheme for a district. To explore the potentiality of this course of action, it would be prudent to have a selective approach and formulate a plan of action for a few selected districts. It would not be difficult to widen the scope later once sufficient experience and capabilities are gained in a few pilot centres. The approach followed with regard to agricultural strategy needs to be pursued in this sphere also.

For the success of Indian experiment at present, nothing is as vital for socio-political stability and general improve-

10 Gadgil D. R. *Employment Orientation in Plan Formulation*, Yojana March 21, 1971 Delhi.

ment of standard of living as such project-complexes related to employment, nutrition and standard of living.

Education and technological research

For advances in agriculture as well as in industry, the significance of education had been realised in India even before independence. The right type of education is essential for the adaptation of attitudes and institutions to the requirements of development as well as for creating the required skills for the implementation and management of a variety of agricultural and industrial projects. Development, in fact, basically is a function of right type of attitudes, institutions and motivations and scientific, technical and managerial skills; it is the task of education in its widest sense to promote them.

Since the Indian strategy has been based on the growth of capital goods industries, the need emerged for high level scientific and technical man-power. In this respect, a man-power planning approach was initiated as far back as 1947, when a Scientific Man-Power Committee recommended that a national register of scientific and technical personnel be compiled as a basis for the better utilisation of skilled personnel for development. This three-volume register, published between 1949 and 1953, listed scientists, engineers and physicians; it has been reorganised, improved and kept up to date in close relation to the successive five-year plans. Because there has always been a wide gap between the estimated demand and supply, these man-power studies have helped to stimulate the increase in schools offering the required type of training.¹¹

However, such a man-power approach has not been applied to middle level man-power needs in industry, agriculture and government and as a result there has been an acute shortage of such middle level man-power. Lack of this approach with regard to middle level man-power

11. See Myrdal, *op. cit.*, pp. 1179-1180 and Planning Commission, Perspective Planning Division, *Approach to Man-Power Planning*, April, 1958, Delhi.

has been responsible for an unplanned growth of schools and university graduates with a generalist training not adequate for the acquisition of specific skills

In fact with regard to education and educational reforms, in spite of the awareness of what needed to be done, no conscious effort on the scale necessary has been made. As a result, compulsory primary education objective—required to be attained by the Constitution by 1960—has not been attained, and no purposive sustained drive has been possible with regard to adult education, the school system has not been changed with a bias towards skills and knowledge in scientific and technological fields and vocational and training institutes have not been properly integrated with the secondary school system. The school system has been oriented towards university education in non-professional subjects and this has created a serious problem of educated unemployed—a type which is not employable either as it has neither the right attitude to work nor has it the requisite skills, the growth of such an intellectual class is a danger to any social system and particularly a democratic system which affords ample opportunities for such a class to formulate and articulate real or imaginary grievances of a variety of classes—the only task at which they can be attracted as a result of their own frustration and inability to make any serious intellectual effort at understanding the problems in their totality

This whole system has been a legacy from the British days and has continued in that pattern till now. The Government of India appointed the Education Commission in 1964 'to survey the entire field of education in order to realise within the shortest possible period a well balanced integrated and adequate system of national education capable of making a powerful contribution to all spheres of national life'¹² On the broad lines of

¹² Government of India Report of the Education Commission (1964-66) *Education and National Development* New Delhi 1966 p. 591

educational reforms, the Commission observes: "Indian education needs a drastic reconstitution, almost a revolution. We need to bring about major improvement in the effectiveness of primary education; to introduce work experience as an integral element of general education; to vocationalise secondary education; to improve the quality of teachers at all levels and to provide teachers in sufficient strength; to liquidate illiteracy; to strengthen centres of advanced study and strive to attain, in some of our universities at least, higher international standards; to lay special emphasis on the combination of teaching and research; and to pay particular attention to education and research in agriculture and allied sciences. All this calls for a determined and large-scale action. Tinkering with the existing situation and moving forward with faltering steps and lack of faith can make things worse than before."¹³ Further, "we must either build a sound, balanced, effective and imaginative educational system to meet our developing needs and respond to our challenging aspirations or be content to be swept aside by the strong currents of history."¹⁴

The task ahead as indicated by the Commission is indeed of staggering dimension. It would need all types of scarce resources and its requirement has to be viewed in the light of other competing uses for these resources. The plan for educational reform needs to be integrated with the development plan. In so far as educational reform raises a claim for resources that competes with other claims in the plan, the conflicting claims must be weighed in terms of their relative importance to development. The belief that this weighing can be reduced to a simple cost-benefit calculation is an escape into superficiality; fundamentally, it must be an **intuitive political judgment**. Apart from this integration of educational planning with the general development plan, it is essential to have a perspective plan for the entire educational system along with a man-power

13. *Ibid.*, p. 1.

14. *Ibid.*, p. 489.

approach to the needs of planned development. Since all the proposed reforms cannot be carried out in a short period, it would be necessary to formulate a time-table for educational reforms and the choice of priorities.

As an immediate task, the outlay on education needs to be raised to six per cent of national income from the current rate of three per cent as suggested by the Commission. Adult education, improved primary education and technical and vocational training integrated with school system—these are the tasks that require urgent and immediate attention. Resources for the purpose should be obtained by curtailing the programme for general, secondary and tertiary education. Briefly the educational system to be an effective instrument of development should be oriented towards (a) Compulsory primary education with emphasis on science and technology, (b) Vast adult education effort, (c) A secondary school system which can impart not only skills and knowledge in scientific and technological fields but also versatility and adaptability to changing situation, (d) A vast network of vocational and training institutes integrated with both the primary school system and the secondary school system (e) Highly selective higher education system with emphasis on scientific subjects and capable of turning out research scientists and technologists required for the development effort (f) A scientific and technical research system integrated with planned development effort.

For attaining self sustaining growth with vital and pervasive impact on employment and standard of living these tasks are urgent, for the realisation of the plan objectives relating to employment and standard of living, reduction in social and economic inequalities, reduction in concentration of economic power and pervasive growth of initiative, resourcefulness, entrepreneurial ability and scientific attitudes and approach there is no other instrument as powerful and effective as the educational system in its widest sense. The striking growth in development potential attained by India is largely due to her lead in this sphere over other developing countries, admittedly,

the educational system requires a radical change but such as it was, it did endow a certain advantage to India as compared to the other developing countries of Asia and Africa.

External assistance

The Third Plan laid special emphasis for the success of development strategy on large external assistance for a decade or so, so as to attain the stage of self-sustaining growth as early as possible. As a proportion of national income, India has obtained from 1963-64 to 1967-68 about three per cent or so of net external assistance. However, even this order of assistance was not assured in time and its continuity remained uncertain. Further, a large part of it was commodity assistance and even a greater part of the rest was tied either to projects or to countries or to both, thus reducing its effectiveness. There were in addition delays at each stage. The assistance on a **per capita** basis was pitifully small and was only a fraction of what has been received by other countries like South Korea, Taiwan and Pakistan.¹⁵

Currently, the net external assistance is declining and is expected to form only one per cent of national income during the Fourth Plan period (1969-70 to 1973-74). In the last year of the Plan, the proportion may not be much more than 0.5 per cent. These features regarding external assistance have not been consistent with the envisaged development strategy and the most disquieting feature is the decline in the rate of net assistance at a time when India's own saving rate has dropped from the peak level of 1963-64 and has still not regained that level. This decline has come about again at a time when India seems to have overcome two of its principal bottlenecks—agriculture and exports—and is poised for rapid growth on the basis of capacities and skills already built. This is the time, in fact, for an assured and timely assistance for at least five years to the tune of at least three per cent of national income on a **net** basis—that is, net of repayments and

15. See Bhagwati and Desai, *op. cit.*, Chapter 10.

interest/dividend payments. With this order of assistance, India would be able to cope with her problems much more effectively and attain a stage of self-sustaining growth sooner than would be possible otherwise.

II. Plan process

Over the years, the plan formulation process has improved and since the Third Plan, an attempt is made to check the internal consistency of various targets through the use of input-output technique. However, the use of any sophisticated planning technique in the Indian context has serious limitations due to inadequacy of data with regard to what is known as the unorganised sector comprising agriculture, small industry and enterprises of various kinds, residential housing and trade. These data gaps vitiate the national income estimates as well as the input-output matrices. An attempt should have been made to segregate the estimates made on a firm basis and the rest, this would have enabled the planners to estimate the margin of error in their estimates as well as projections. Similarly, a serious attempt should have been made to remove the data gaps. For the input output matrix, the approach should have been to develop a partial matrix based on current engineering and project data for meaningful sectors to be defined from a plan point of view instead of deriving an overall matrix for all industries, each one representing an aggregative picture of technologically dissimilar activities, this would have been more meaningful for planning purpose than the unreliable coefficients resulting from a detailed matrix, based on aggregation of dissimilar and technique-wise different industries. A partial selective approach, to begin with, in the matter of processing such data would have been more fruitful. Further, such an approach would have created an urgency for collecting and processing data with regard to schemes implemented under the plans, such data would have improved also the evaluation of plan projects. Even after two decades of planning, it is indeed amazing that no systematic project studies are available, the data probably are there with

the project authorities in public as well as the private sector but no proper mechanism has been devised to collect, process and analyse these project data in a meaningful form for the estimation and projection of crucial variables like the magnitude and pattern of output and investment, input and capital coefficients, and income distribution. Both national income and input-output estimates would have been on a much firmer basis if this approach had been followed.

Even within the limitations of data, the plan process would have been more rational with regard to the formulation of the overall size and sector-wise composition of investment if financial planning process had been based on available data. Since financial planning itself was defective, there has been an inherent inflationary bias in the plans. And this arises largely due to lack of analysis and understanding of the structure of saving in the economy.¹⁶

From the point of view of data availability the Indian economy can be divided into certain broad sectors: public sector, private corporate sector and the household sector comprising all non-corporate private activities. The first two are deficit sectors and rely on the surplus of the household sector which accounts for more than 80 per cent of national saving. The saving of the household sector comprises saving in the form of physical assets like machinery, buildings and stocks of commodities and saving in the form of financial assets like currency, bank deposits, social security contributions, and private and Government shares and securities. The household sector's saving is transferred to the other two sectors by its direct purchases of their securities and its indirect purchases through the financial intermediaries.

Though the estimates of the overall saving of the household sector are not very reliable, its saving in the form of

16. See Bhatt, V. V., *On Inflation and its Control* in *Economic Development in South Asia* edited by E.A.G. Robinson and Michael Kidron, London, 1970.

financial assets has been estimated precisely¹⁷ Firm estimates are available since 1950-51 and projections can be made without much margin of error for the future on the basis of growth rate in rural-urban income, policies of financial institutions and extrapolation of past trends in some respects With this exercise, it would be possible to determine the total resources transfer from the household sector to the other two sectors The saving estimates for the other two sectors have a firm basis Again requirements of the private corporate sector in future can be estimated on the basis of past trends and Government policies Thus it is possible to estimate the size of the public sector plan very precisely This technique of analysis is developed by V V Bhatt and was in fact used for the formulation of the Fourth Five-Year Plan¹⁸

Earlier this technique was not used and even with regard to the Fourth Plan as finally formulated, modifications were made on an arbitrary basis The inflation bias in the planning process thus still continues but the already evolved technique would keep it within certain limits Attention may be drawn in this connection to the saving and flow-of-funds matrix for the years 1961-62 and 1967-68 and the Fourth Plan period matrix projected by Bhatt This basic matrix provides a powerful tool for rational financial planning The other factor which introduces a built-in inflationary bias in the plan process is a systematic underestimation of inventory requirements This too has been a common feature of the first three plans,¹⁹ in the Fourth

17 See Bhatt V V *Savings and Capital Formation*, Economic Development and Cultural Change, April 1959 and the subsequent estimates of saving prepared by him and published in the Bulletins and Reports on Currency and Finance of the Reserve Bank of India

18 See Bhatt V V *Saving and Flow of Funds Analysis: A Tool for Financial Planning in India*—Paper presented at the Biennial meeting of the International Association for Research in Income and Wealth held at Jerusalem in September 1969 (Paper published)

19 See Bhatt V V *On Inflation and its Control*, op cit., and Sen A K, *Working Capital in the Indian Economy*, in Pricing and Fiscal Policies Edited by Rosenstein-Roden, London 1964 See also Hazari R K, *Industrial Planning and Licensing Policy*, Delhi 1967

Plan, this has happened to a much less extent than earlier.

These two analytic weaknesses in the plan process have resulted into plan size and composition which are **prima facie** not attainable. Imbalances in the production structure, longer than expected gestation lags, severe under-utilisation of productive capacities along with acute shortages and general inflationary pressures—all these can be partly attributed to these basic weaknesses. The basic development strategy emphasised rightly the building of productive power or development potential of the economy; but in the detailed formulation of this strategy certain vital elements were missed and these relate to (a) scientific and technological research adapted to the development process; (b) design and engineering capacity for project formulation and implementation; (c) adaptation of the educational system to the tasks of development; and (d) improving the empirical and technical base for plan formulation, implementation and evaluation.

III. Policy instruments

The Five-Year Plans and the Annual Plans have been formulated on the basis of certain objectives and certain assumptions with regard to the behaviour of various groups including the public sector agencies. These assumptions presuppose the use of specific policy instruments and knowledge about their possible impact on the behaviour of various groups. But neither the actual policy suggestions nor the basis on which a certain behaviour is assumed is specified in the Plans. The Plans, as the ex-Deputy Chairman of the Planning Commission used to comment, lack a policy frame.²⁰

This characteristic of Indian plans arouses doubts about their validity as action plans. On the other hand, they fail to provide guidance to the policy makers in evolving a

20. Gadgil, D. R., *Planning without a Policy Frame*, Economic and Political Weekly, Annual Number, February 1967, pp. 253-264.

co-ordinated set of policies for the attainment of plan objectives. A plan ceases to be a plan of action unless it indicates precisely the nature and content of a feasible and co-ordinated set of policies, it becomes merely a set of projections based on certain unspecified assumptions with regard to the behaviour of the public sector and the private sector groups. This weakness of the plan process, coupled with the fact that there is no machinery for discussing and evolving a co-ordinated set of policies, leads to the adoption of un-co-ordinated and mutually conflicting policies which in turn affect adversely plan performance.

Policies for resource mobilisation

Take for example the need for strengthening the resources-base of the public sector and of the economy in general for financing the required step-up in investment. The instruments are tax policy, management and pricing policies of the public sector enterprises, the price and distribution policies with regard to scarce commodities, the interest rate structure and the policies relating to financial instruments and institutions. The income tax rates are fairly high and the rate on the highest bracket exceeds 90 per cent. This has proved to be a disincentive for saving as well as enterprise. If such rates were effective, public sector resources would have increased but would have been offset by a decline in saving and investment effort in the private sector. To the extent to which the saving propensity is higher in the private sector than in the public sector, a decline in net overall saving as compared to its potential would result. The way out, however, has been tax-evasion on a large scale²¹. But worse still, these resources do not flow into the plan system; they get diverted into speculation and such other non plan activities. Anyway, the net result has been that saving for

21 For the extent of tax evasion see Ojha P. D. and Bhatt V. V. *Some Aspects of Income Distribution in India*. Bulletin of the Oxford University Institute of Statistics Vol. 3, 1963. Their subsequent estimates for the sixties show a sharp rise in the magnitude of tax evasion.

plan purposes is less than the actual saving in the economy.

This result could have been avoided by exempting saving in specified forms from income-tax and at the same time preventing the use of tax-evaded surpluses in speculative activities like trade in gold, real estate and foreign exchange. The use of gold ornaments has been a sociological fact for several centuries in India and this fact cannot be wished away by announcing a legal prohibition. Gold, being not domestically available, is imported illegally and finance is largely provided by Indians who have settled abroad and need to remit money to India. If these Indians are permitted to remit their saving through official channels at a preferential exchange rate, as is done in Ceylon and Pakistan, official foreign exchange resources would have increased and if a part of these was used for official gold imports for domestic sale, Government would have realised profits in gold trade without any net loss of foreign exchange. In addition, if there were general price stability and a rational structure of interest rates, gold would cease to become a speculative commodity as it has become.

Similarly, if purchases and sales of land and real estate are permitted only through official Real Estate Corporations, Government could derive the profits from these transactions and thus an outlet for the use of tax-evaded resources can be plugged.

All these policies need to be co-ordinated with the interest rate policy and price policy. If inflationary pressures are avoided, speculative activity would lose much of its attraction. In addition, an appropriate interest rate policy is essential to attract saving in the form of financial assets and for national allocation of resources. As indicated earlier, the crucial part of saving from the point of view of planning is that part which is kept in the form of financial assets. Any increase in such saving is a function of the structure of interest rates, structure of financial assets and the structure of financial institutions. In a poor country with substantial illiteracy, the financial instruments will

have to be of a simple nature and should not involve safe-keeping of paper instruments or transaction costs. This implies that bank deposits, units of Unit Trust and insurance policies should be so devised as to meet the preference pattern of savers²². But the important factor is the return and unless the return on these assets is comparable to that on private lending and on physical assets after allowing for risk premia, savers may not be attracted towards them. It appears from the available evidence that an interest rate of less than 10 per cent on long-term saving and six per cent on short-term saving (for a period of a year or less) may not be attractive, even after assuming relative price stability²³.

Interest rate policy impinges on resources indirectly also through its impact on rational allocation of resources. For example, in agriculture and industry if the plan growth targets are to be attained, the internal rate of return of selected projects should be in the neighbourhood of 20 per cent per annum. If project selection process is to be consistent with these growth targets and if the interest rate policy is to be consistent with such rational selection of projects, the lending rate by the financial institutions should be 10 per cent or more in real terms. For infrastructure projects the rate can be less say, around 6-7 per cent as they generate external economies which are taken advantage of by the agricultural and industrial projects. Thus even from the point of view of rational allocation of resources the structure of interest rates (in real terms) should be such as to result in the highest rate at 20 per cent per annum and the lowest rate at six per cent per annum.

This discussion illustrates the manner in which co-ordination among various policies is essential—a co-ordination that at present is lacking. The need for co-ordination

22 In this connection see Bhatt V V, *Some Aspects of Deposit Mobilisation*, Economic and Political Weekly, September 5 1970.

23 See Bhatt V V, *On Rational Policy Regarding the Structure of Interest Rates*, 1970, (Mimeographed).

can be also illustrated by reference to a set of policies related to industrial investment and output.

Policies relating to industrial investment and output

On the one hand, there are incentives for raising the rate of investment and industrial output, while on the other, there are distribution controls of a discretionary nature to curb investment and output. The incentives relate to development rebate for corporate tax purposes and tax holidays. These two incentives work in favour of expansion of existing companies; for, without expansion, these incentives are not very meaningful. Then again, there are fairly low rates charged on term lending and a structure of financial institutions has been developed to meet the assistance requirement of industrial concerns at these low rates. This fact, coupled with interest payment treated as a deductible item for the purpose of corporate tax, provides an incentive for borrowing. Effective interest rate thus becomes even smaller than the rate charged by the financial institutions. Then again severe import controls provide industries with a sheltered market.

Since all these incentives are excessive, there is a powerful stimulus for investment activity that cannot be supported on the basis of available domestic and foreign exchange resources. There is thus a need for discretionary physical controls on investment and the allocation of foreign exchange. Excessive incentives generate thus the need for excessive physical controls.²⁴ Effective rational operation of these administrative controls is inherently difficult. They require a large number of administrative personnel. Apart from that, their operation requires criteria for appraisal of individual applications. Again, since the applicants would be uncertain with regard to permission from the control authorities, their applications are not in a form that can be properly appraised. How, then, to decide about the relative merits of various applications?

24. See Myrdal, *op. cit.*, Appendix 8; see also Little and others, *op. cit.*, Chapter 5 and Bhagwati and Desai. *op. cit.*, Chapters 12 to 14.

This is an impossible job and becomes in fact arbitrary when neither the data nor the criteria for appraisal are available. The result is just delay and arbitrary decisions. Since the administrators would not like to take undue risks, the result has been either rejections of deserving cases or permission to business houses with established reputation. So, along with delays and arbitrariness of decision-making, this process creates what is known in India as the problem of concentration of economic power in the hands of a few big business houses. Thus a self-created problem has to be tackled and a fresh licensing requirement is now added to the list of licences to be obtained—a clearance from the point of view of Monopolies and Restrictive Trade Practices Act. The control system thus becomes self-sustaining and self-justifying without regard to the original objectives that it was meant to achieve.

If incentives had not been excessive, the control apparatus could have been simpler and much more effective and rational than what it has been. Here, then, is another sphere where there is lack of co-ordination among related policies. This lack of co-ordination between incentive policies and the control apparatus can again be illustrated by reference to policies to stimulate exports.

Export incentive policies

Import controls, cheap credit and tax incentives make all types of import substitution projects profitable from a private point of view. But the prices and quality of the products of such projects are generally not competitive in the international markets. At the same time, an increase in exports (7 per cent per annum during the Fourth Plan) is essential from the balance of payments point of view. Hence the need for incentives of the type of cash subsidies, import replenishment licences, availability of materials like steel at international prices and so on. But these incentives perpetuate industrial inefficiency as incentives like import replenishment licence cannot work without high domestic prices and an over-valued exchange rate.

The export incentive problem could have been simplified and reduced to manageable proportions if project selection had been done rationally. The very idea behind all types of licences—industrial licence, import licence, capital issues licence and monopoly clearance—probably was to allocate available resources rationally among competing uses. But the project at no time is examined in its totality and none of the licensing authorities actually knows about the worthwhileness of the project from the national point of view. The simple yardstick applied is that of import substitution and of course any project can pass this test; but the crucial questions of the cost of import substitution and the export possibilities are never posed, let alone examined.

But this is not all. The control apparatus by its own working makes the projects still more inefficient. The delays in licensing increases the gestation lag of the project and thus increases capital cost; increase in prices of inputs and equipment meanwhile raises the costs further. Arbitrary decisions relating to the size of the project and imports of equipment inhibit the project from being so formulated as to be of an optimum size and economically viable. The entrepreneur has no incentive to prepare a detailed project report even when he approaches a financial institution for assistance because of the uncertainties relating to various clearances. Because of the various constraints already put on the project by the various licensing authorities, the financial institution, again, has not much manoeuvrability left to suggest modifications in the project but anyway its own appraisal would be time consuming and thus would add to the costs. If the financial institution appraises the project only from the point of view of private profitability the project may not turn out to be efficient from the point of view of domestic costs involved for a unit of foreign exchange saved/earned.

In this sphere of export incentives also, a set of co-ordinated policies would have been more effective than these mutually conflicting policies. Thus to raise the rate

of effective saving as well as investment and for the rational allocation of resources, it is essential to devise a machinery for evolving a set of co-ordinated policies. This machinery at present does not exist and each policy-making authority takes decisions on the basis of a partial and limited view of the economy. These fragmentary and isolated decisions can hardly be expected to lead to a harmonious blending of various policies. The essence of planning is to evolve a co-ordinated set of policies to guide the development process along desired lines, if the plan process lacks this basic element of planning, it becomes *laissez faire* of a type but much less efficient than the classical *laissez faire*.

This fragmentary decision-making process with regard to discretionary controls has another serious drawback, particularly in a democratic political framework, It leaves the door open for policies to be influenced by the political process and thus for corruption in the entire system. Its socio-political consequences are even more undesirable for the political economy than its purely economic consequences. It can give rise to a corroding disease which can enervate the whole system.²⁵

²⁵ On corruption see Myrdal, *op cit* Chapter 20 on *Corruption—Its Causes and its effects*

THE SECULAR BEHAVIOUR OF THE INDIAN ECONOMY

By P. R. Brahmananda

On the historic occasion of the Silver Jubilee of Indian Independence it may not be inappropriate to examine the secular trends and drifts in our economic state. Any such appraisal, of course, is beset with statistical and analytical deficiencies; yet some appraisal has to be attempted. We must know the broad contours of our economic history from a physical angle. The economists are not decided on the choice of the indicators to measure changes in the economic state. Two questions, however, arise. Has there been any decided evidence of sustained and sustainable growth? Has there been any inkling of a structural change? If these questions are tackled, even broadly, can we confidently state that economic and social policy has consciously contributed to the change?

There is a severe index number difficulty in an unequivocal demonstration of the fact of growth. If we choose, say, in a base year a number of commodities and if we find that in a later year the output of each of the commodities has gone up, we can say that if the choice of the base year commodities is well taken, growth has taken place by the measure of that group. We must take care to see that the output position in each of the items is stable in both years. It is customary to adopt several criteria for this. A three-year or five-year moving average may be chosen. One may find out whether the output in a later year is less than that in a year close to the base year and so on.

We appear to have skirted the issue of the choice of the commodities for inter-temporal comparison. Should we not take only those commodities which have a significance in both years in terms of a stable structure of relative demands? Our initial hunch is that a fall or shortfall in output in a later year must be largely due to supply difficulties. In that case, the fall is a sign of non growth. It is possible that if we take two sets of years, say, the first five years and the last five years and if there is a reasonable time-distance between the two sets, we may find that the output in a year in the second set is less than in a year in the first set. This is some evidence of the absence of stability in growth. Take jowar, its output in 1969-70 was less than that in 1953-54 or ragi whose output in 1965-66 was less than that in 1949-50¹. In barley, output during 1962-63 to 1965-66 was less than that during 1949-50 to 1952-53. In pulses, as a whole, output in 1968-69 was substantially less than that in 1949-50. Groundnut, sesamum, linseed, rapeseed, mustard and castor seed, did not show any stability in 'growth'. In cotton, output in 1970-71 was less than that in 1956-57. In jute, output in 1970-71 was less than that in 1958-59 and the same as that in 1952-53. In sugarcane, the output in 1967-68 was just about the same as in 1949-50. Pepper showed no evidence of stable growth. X.2

A close perusal reveals that the stable growth postulate holds only for wheat, tea, coffee and rubber. There is some presumption of stability in rice, but even this needs to be very carefully looked into. The following findings can be vouchsafed. L3

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(1) Barring the four items referred to above and possibly rice and sugarcane, the level of output of each of the other commodities is characterised by instability, the existence of a positive trend, in terms of economics, is doubtful in their case. A trend postulates steady accumulation or improvements in productivity in the production of commodities. When output levels fluctuate around a stationary volume, there does not accrue any evidence of ability to accumulate nor of technical change. A good year compensates for a bad year and so on.

(2) There is no synchronisation in different crops in regard to shortfalls; given some system of weighting, one can always obtain an aggregate trend. The weights for some 'growing' crops overcompensate those for 'stationary' crops.

(3) There is no evidence that chronic instability taken in respect of the aggregate of food crops or even of all crops has been overcome. (For example, witness the sharp falls in 1965-66 and 1966-67, and the threatened drop in 1972-73.)

As (a) different crops are not substitutes of each other, (b) the groups differentially affected do not overcompensate each other in terms of real-income transfer, and (c) the loss-in-well-being significance in subsistence crop-shortfalls is socially greater than the gain-in-well-being significance of fast-growing market-serving crops, the index of 'growth' through the conventional system of weighting cannot be justified.

There is a widespread feeling in the country that dry areas and insufficiently rain-fed areas have not been witnessing the phenomenon of 'stable' growth. Perhaps the absolute real-income states in these areas have not changed for the better. As there is no evidence that the incidence of population growth is substantially less keen in these areas as compared to the wheat-rice-plantation-sugarcane belts, the *per capita* real income and consumption would have gone down in these areas. If we further introduce the hypothesis that the lands belonging to the backward classes and tribals fall mostly under the dry-belts, perhaps in most States, we have a class phenomenon in the distribution of gains of development. As initial income-states are crucial in the determination of the ability to absorb the benefits of social overhead facilities like irrigation, fertilisers, credit, education etc. we have evidence of a cumulative process of economic and social backwardness.

It is interesting to note that there is no evidence of an upward trend in the supply of live-stock, particularly of

work-animals There have been persistent reports of scarcity in the supplies of fodder crops As some portion of backward classes earn their livelihood from the tending of animals and of cultivation of pasture, the absolute well-being states of the bulk of this group must also have suffered Can we say the concept of stable growth process can be applied to industrial production in the organised sector? If we take the general index of industrial production as a continuous series through the shifting of the base, we get two years during the period of 1951 to 1970 in which the index was lower than in a previous peak In 1966 and 1967, the index was 152.6 and 151.4 as compared to 153.8 in 1965.

If we take the index of output of the agro-based sector between 1951 and 1970, we get two years in which the output level was lower than that in a previous peak (1966 and 1967), in the metal-based group, there were four years (1952, 1958, 1966 and 1967) in which this was the case Taking the index relevant to basic industries, we have two years (1953 and 1970) in which the index was below its value in a previous peak In capital goods industries, there have been seven years (1953, 1958, 1959, 1966, 1967, 1969 and 1970) in which the production has been below the previous peak In intermediate goods industries, there have been two years (1966 and 1967) in which the above has been the case In consumer goods industries, there has been one year (1967) in which the production has been lower than that in the previous peak It appears that the notion of a stable growth process is also not applicable to industrial production, though the position appears to be better than that in agriculture

We do not have the full series regarding the index number of mineral production But the index in 1967 was less than that in 1966 In coal mining, the output in 1964 was less than that in 1963 and that in 1958 was less than that in 1957. In metal mining, the output in 1967 was less than that in 1966 and output in 1957 and the two succeeding years was less than that in 1956 It is clear that the notion

of a stable growth process is also not applicable to mineral production.

Thus it will be noticed that the concept of a stable growth process cannot be applied to agriculture and live-stock. It is with some exception that the concept can be applied to industries and minerals. These constitute the major commodity sector of the economy. The physical indicators are available regarding the production movement in different years. If the commodity sector does not support the hypothesis of a stable growth process, it is necessary that fresh thought should be given in regard to the dominant physical goals of the community. When production is unstable, whatever be the reason, the flow of real income of producers and those dependent upon them is affected; there are indirect repercussions on the scale of output of inter-dependent activities. Besides, there is room for the play of speculative forces; with uncertainty in production, the smooth process of investment tends to be vitiated. The risk premium would tend to be considerably higher.

The question arises whether we are not in a position to overcome the uncertainties in regard to the maintenance of stability of output through countervailing bufferstock operations. Let us take first the supply of cereals. Between 1950-51 and 1969-70 there have been six years in which the supply has fallen short in comparison with the previous year. In one year (1965-66) the shortfall over the previous one was as high as about 14 per cent. In tobacco, there have been seven years in which the supply was less than in the previous year; in three of these years the supply was short by more than 10 per cent. In oil seeds the supply was short over the previous year in seven years; in four of these years the supply was short by more than ten per cent. In raw cotton, there were seven years in which the supply was short over the previous year; in six of these years the shortfall amounted to more than ten per cent. In jute, in eleven years there was a shortfall over the previous year; of these in seven of them the shortfall was above ten per cent.

Does the position improve in regard to the supply of crucial investment material like steel? We know that the domestic production of steel has been subjected to instability in recent years. But the supply of steel has been showing greater instability. In 1957-58 and 1958-59 the aggregate supply was less than that in 1956-57. In 1965-66 the supply was less than that in 1964-65. But in 1966-67 and 1967-68 the supply was less than that in 1961-62. In 1968-69 the supply was less than that in 1960-61 and just a little higher than that in 1956-57. In 1969-70 the supply was less than in 1961-62 and just a bit higher than that in 1960-61. The supply of equipment through import has also been fluctuating. In 1967-68, 1968-69 and 1969-70 the imports of capital goods were less than those in 1960-61. In 1969-70 the scale of imports was just about 50 per cent of that in 1965-66.

We have so far been examining the issue of stability in the growth process by choosing physical indicators regarding outputs and supplies. The process of growth does not fall from the heaven. If we can demonstrate that the proportion of investment to national income is stable or is rising, we can at least make a statement that a stable and a rising portion of national product is being devoted towards capital formation. If we observe that in the economy this proportion is at least constant year by year and reasonably high, we may say that there is an intrinsic stability in the process of growth. In fact, according to a school of thought the raising of this proportion to a particular value is supposed to mark the watershed between stagnation and development.

What is the evidence available from the Indian scene? If we take the ratio of net savings to national product we find that during the decade ended 1960-61 the savings ratio began at around 7 per cent in 1950-51, went up to about 9 per cent in 1955-56, and remained at between 8 and 9 per cent in 1966-61. Thereafter it moved up to 11 per cent in 1965-66. After 1965-66 it has been sliding down and declined to about 8 per cent in 1970-71. The value of ratio in 1970-71 was just a little higher than that in 1950-51 and

about the same as in 1955-56! A similar picture is presented in the ratio of net investment to national income. There has been a setback since 1965-66. It is not that the setback is due only to reductions in foreign savings. The savings ratio in 1970-71 was less than in the years in which the foreign saving was unimportant.

We may draw a conclusion favourable to stability over the period if the decline in the savings ratio coincides with the distinct drop in the capital-output ratio and/or in the population growth rate. The evidence has been the other way round. The capital-output ratio has risen; so has the population growth rate. We are, therefore, forced to draw the conclusion that the postulate of intrinsic stability does not hold in regard to India's investment experience.

II. Has there been a rise in the rates of employment to labour-force?

One useful way of looking at the problem of employment is to view it as an aspect of the problem of the supply of capital. In any economy in any year there is a certain supply of capital which is inherited from the past. Capital consists of the stock of diverse commodities which are available for utilisation in the processes of production. Production involves the use of services of labour and hence is conditional also upon the availability of stocks of goods which can be employed in production for the purpose of putting labour to work. If labour is not required as an input-service in the process of production or if the above goods are not required by labour in its work-process, production will not need the above goods as a stock unlike that of specific inputs which are used as raw materials, goods-in-process, instruments of production etc. It is usual thus to divide capital under two convenient heads: (a) circulating capital and (b) fixed capital. Labour is an input-service in production as it needs the support of means of subsistence, and as these means cannot be produced without time-lags, we have to keep room for stocks of means of subsistence in capital. This category is known as circu-

lating capital. Besides this, production needs other inputs and input-services, these are known as fixed capitals.

Without circulating capital, there can be no employment of labour and without fixed capital, there can be no 'production' of commodities. But it is a peculiar property of circulating capital that the goods included therein can provide employment though the object of such employment is not the production of commodities. If labour is to be employed in production as such, we need the stocks of non circulating capital as inputs. Production of individual goods has to be perceived in the context of a structure of inter-dependence. This may be due to inter-relationships in demand and/or in technology. It is convenient to separate the two.

Given a preconceived structure of technological inter-dependence, we can then fix the scheme of inputs including stocks of instruments of production. But the structure has to be related to the needs of production of goods needed by labour as means of subsistence. The quantities so needed are a function of employment as well as of the level and composition of the wage-rate. It is, therefore, pertinent to predetermine the volume of employment to be offered, and fix the level and composition of the real wage-rate and then ascertain the annual flow of wage-goods needed in the economy as well as the time rates of change in such a flow. Having done this we can find out the schemes of inputs technologically needed to get the above flow going. The issue then is whether the initial stocks of productive capacity can yield the scheme of inputs and the required volumes of wage-goods available as advances to workers. There may be a gap. The stocks may fall short of the requirements. Such a gap may be termed a 'capital gap'. The 'gap' may yet remain even after reducing the required level of the real wage-rate and minimising the output of luxury 'capital' goods. We may thus reduce the size of the 'capital gap' provided appropriate policies are simultaneously introduced to keep the real wage-rate low and minimise the wage-differentials.

In a closed economy, the 'capital gap' can be reduced to a 'wage goods gap', given available natural resources and ability to absorb technology. For, given the stocks of these goods, there exist ways by which the gaps in other commodities can be closed. Of course, the time-span required to achieve full employment is shortened if stocks of other inputs can be thrown in from outside.

The above preamble serves to pinpoint three aspects of the employment problem: (i) the volume of employment can grow at a rate at least equal to that at which the stocks of wage-goods are growing, (ii) the stocks of wage-goods tend to grow at the rate at which the capital stocks to produce wage-goods are growing given the productivity-ratio of these stocks and (iii) the volume of productive employment will be growing at the rate at which the overall productive capacity is growing, given the degree of mechanisation and the productivity-ratio of the above capacity.

Is it possible to ascertain statistically the possible states regarding employment-availability in India? Data available from the NSS and the censuses are of no help; nor are

TABLE 1
THE COMPOUND ANNUAL RATES OF CHANGE

	1950-51 to 1960-61	1960-61 to 1968-69	1950-51 to 1968-69
1. Capital stock	3.5	4.7	4.2
2. Capital (fixed) stock in wage goods	—	—	2.8
3. National income (1967-68 prices)	3.7	2.9	3.4
4. Supply of basic production goods	3.8	0.5	2.3
5. Supply of food articles	3.4	1.7	2.7
6. Geometric mean of supplies of steel and cement	11.0	4.7*	7.7*
7. Population	1.9	2.2	2.1*
8. Male labour force other than cultivators	3.1	2.8	3.0*

* 1950-51 to 1970-71.

the employment exchange data very useful. We have to proceed in a roundabout way. The compound annual rates of change of some relevant magnitudes are given in Table 1.

The table shows that over these two decades the overall annual rate of growth of capital stock is about 4.2 per cent whereas the rate of growth of real output is about 3.4 per cent or so. The supply of basic production inputs which predominantly consist of agriculture derived goods has been growing at about 2.3 per cent. This is a bit higher *than the rate of growth of population*. But the rate of growth of male labour-force other than of cultivators is about 3.0 per cent which is higher than the rate of growth of basic goods and of food articles. Between 1960-61 and 1970-71 (or 1968-69) in some cases the gap between the rate of growth of basic goods (and of food articles) and of population (and male labour force outside of cultivators) has widened.

There is no doubt that the wage-goods supply has grown at a lower rate than population and labour-force. In fact, over the whole period 1950-51 to 1968-69, the capital stock relevant to production of wage-goods has grown at a rate of 2.8 per cent per annum (compound) whereas overall stock has grown at a higher rate. Allowing scope for mechanisation for which some positive evidence is available in regard to agriculture itself, employment growth rate in the wage-goods producing sector itself must have grown at a lower rate than even population and overall labour force. There is every possibility that the problem of unemployment, particularly of concealed unemployment, has become acute in the economy.

III Have there been structural changes?

Is it possible to demonstrate that the Indian economy underwent major structural changes during the period 1950-51 to 1970-71? One difficulty in examining this question is the vagueness of the term, 'structure'. Possibly what is meant here is that a structural change has taken place if the relative proportion of certain key magnitudes has

altered. By itself this may or may not imply a beneficial impact. We may also refer to structural changes, as occurring when certain fundamental factors had so attended as to cause the natural value of some parameters to go up at a higher rate at a later period than in an earlier period. In what follows we shall adopt both these meanings.

Unfortunately, population data have been vitiated by alterations in census definitions. However, it is yet true that the proportion of population dependent on agriculture and related activities has continued between 1961 and 1971 to hover around 70 per cent of the total population. There has been a small variation in the proportion of urban population to rural population. The measure of the ratio of labour-force to population has become non-comparable between successive censuses. There is no reason to expect a major variation in the ratio of labour-force to population, even on a comparative basis, other than that which can be accounted by changes in age-composition. What is remarkable is the improvement in the measure of life-expectancy. This itself can be accounted for by the steep reduction in mortality rates. No conclusive evidence has been provided in regard to a fall in the birth rate.

What about the relative proportion of contributions of different sectors to the net product? One leading theory is that economic development manifests a rise in the relative share in the contribution from the manufacturing (secondary) sector and a relative decline in the contribution from the agricultural (primary) sector. This theory presupposes the postulate that the two sectors can potentially exist as independent, or largely so, self-contained sub-systems at all initial states; what development brings about is a gradual alteration in the proportion of relative demands and a consequent structural change in the technological relationship between the different sectors. Without going into the merits of these hypotheses, we may examine the relevant Indian data in recent years.

It is seen from Table 2 that in terms of 1948-49 prices and in the conventional series, there has been a decline

TABLE 2
RELATIVE SHARES OF THE PRIMARY, SECONDARY
AND TERTIARY SECTORS

	Conventional series of <i>N I</i> (<i>bracket figures in 1948-49 prices</i>)		New series of <i>N I</i> (<i>bracket figures in 1960 61 prices</i>)		(Current prices)
	1948-49	1968 69	1954-55	1960 61	
A Primary	49.1 (49.1)	47.7 (47.7)	na (55.8)	51.0 (51.0)	49.7 (43.7)
B Secondary	17.1 (17.1)	19.2 (16.7)	na (17.1)	20.1 (20.1)	19.9 (22.9)
C Tertiary	34.0 (33.0)	33.9 (43.3)	na (27.1)	28.9 (28.9)	30.4 (33.4)

in the relative share of the primary sector (agriculture and related activities) in net product. But this decline has occurred at the cost of the tertiary sector. In terms of 1960-61 prices, in the revised series of N.I., the relative share of the primary sector has slumped from 55.8 per cent in 1954-55 to about 43.7 per cent in 1969-70, but the relative shares of both the secondary and tertiary sectors have grown. There is thus some difference between the data based on the 1948-49 prices in the conventional series and those on the 1960-61 prices in the new series. But the measurement of variation of relative shares in constant prices has no analytical significance. What is revealing is the measurement of variation in relative shares at current prices. In the conventional series there had been no persistent change over the period in the relative shares of the three sectors. The slight decline in the primary sector and the slight increase in the secondary sector cannot be deemed to be stable phenomena. In the new series also, there has been no perceptible change in the relative shares of the primary and secondary sectors: only both have lost a little to the tertiary sector.

We must therefore rule out any significant structural change in the relative shares at current prices. The divergent patterns in the behaviour of the shares under current and constant prices only point to the behaviour of the internal terms of trade between agriculture and industry such that no alteration in relative shares in current prices occurs. In fact, our contention is that at current prices a comparable series between 1950-51 and 1970-71 would have indicated no alteration in the relative contribution of agriculture *vis-a-vis* industry. It appears that if the agricultural growth rate happens to be lower than the growth rate of the manufacturing sector, the terms of trade move in such a manner that its relative share at current prices is not depressed; a reverse phenomenon is also possible when the manufacturing sector starts growing at a slower rate than agriculture. This would imply that the pattern of behaviour of prices conforms to the early classical hypothesis in this respect. What is most interesting here since 1969-70 is the

tendency for the terms of trade to turn in favour of manufacturing. It is not clear whether this is due to fiscal and price fixing policies of the Government. Perhaps there are repercussions on agriculture and industry through prices of both food and commercial crops.

Is there any evidence that the relative share of the organised sector has grown at a faster rate than that of the unorganised sector in manufacturing? There is clear evidence that the relative share of organised industry in net output at current prices has certainly gone up. In the conventional series the relative share of the factory enterprises in net output at current prices was about 5.8 per cent in 1950-51. In 1960-61 it had gone up to 9.4 per cent. In 1968-69 it was 9.3 per cent. In the revised series the relative share of large scale manufacturing and electricity was 8.5 per cent in 1960-61 (at current prices) and had moved only slightly to 8.7 per cent in 1969-70. According to the revised series there does not appear to be any perceptible shift in favour of large scale manufacturing vis-à-vis small scale manufacturing and construction sectors. How do we account for the difference in the trend of the relative share of the factory sector vis-à-vis the small sector as obtained in the conventional series and in the revised series? One reason for introducing the Revised Series was the belief that the small scale sector has grown at a faster rate than was revealed by the conventional net product series. The basis for this hypothesis has not been verified. Anyway we may vouchsafe a broad conclusion that the rate of growth of factory sector vis-à-vis small scale sector was faster during the period 1950-51 to 1960-61 than in the period 1960-61 to 1969-70. During the sixties the large scale factory sector has been affected by the recession. The assumption in the revised series is possibly that the small scale sector has not been so adversely affected. This is questionable. Available data in regard to supplies of commodities which serve as inputs indicate that the position has not been satisfactory during the sixties. Shortfalls in raw materials should affect large scale industries less severely than they do the small scale industries. The effects of demand shortfalls

may affect large-scale industry more seriously than the small-scale industry. Anyway, the net product series in regard to industry as given in the revised series needs a new look. One should not be governed here by hunches and notions. It is true that Government policy has been more beneficial to the small-scale sector as against the large-scale sector, but the small-scale sector that enters here is a surrogate for the large-scale sector!

There is clear evidence that the relative share of the corporate sector in industries output has been rising significantly. This has been the result partly of fiscal policy, particularly tax policy itself; there has been a bias in favour of organising manufacturing under the aegis of the corporate form. Many other factors are also responsible for this. We may mention here, the cost of compliance with regulations, the social prestige attached to the corporate form, the unionisation of labourers, impersonalisation of consumption expenses, particularly of luxury items under the corporate form, and similar factors. 'Incorporate or perish' is the advice given to modern firms!

Has there been a structural change in the pattern of industrial output? It is generally believed that in a developing economy undergoing industrialisation, the rate of growth of capital goods and related industries would be higher than that of consumer goods industries. Between 1950 and 1960 the annual compound rate of increase in industrial production was about 7.4 per cent; the figure for engineering industries was about 14.2 per cent. But between 1960 and 1970, whereas the annual compound rate of increase in the index of industrial production was about 6.1 per cent, that for engineering industry was about 8.5 per cent. Metal-based industries, which showed an average annual increase of 17 per cent during 1950-55, 12 per cent during 1956-60, and 18 per cent during 1960-65 showed an increase of just one per cent between 1966-70. The level of output of capital goods industries in 1970 was less than that in 1965. One would, therefore, be hesitant to generalise that a structural change which is viable has taken place

in respect of the composition of industrial production. The bulk of the capital goods sector in 1970-71 was facing under-utilisation due to structural reasons. It would, therefore, be hazardous to assume that a major shift towards capital goods industries has been stabilised in the Indian economy.

Some economists point out that the 'pace' of development has been proceeding at a higher rate than the rate of growth of real income. Not all the evidence of a higher pace can be seen in the realised growth of output. Excess capacity for planned use in the future is being built. The capacity to grow is itself being raised. Maurice Dobb once contended that the advance build-up of the capital goods sector is a reflection of the principle of acceleration-in-reverse. A similar viewpoint is held regarding the advance-development of economic overheads like infrastructure facilities. A number of ideas are mixed up here. Let us take the rate of growth of the capital goods sector. As we have seen, this sector has been decelerating into a crisis from the middle sixties. The bulk of the products of this and the related groups has to be used only in a self-same manner i.e. in the further production of similar capacity. There is not even an indirect link, except via export earnings, with the consumption necessities sector. The technical capital-goods to consumption output ratio in these cases is infinite. It is true in a Neumann-type expending economy with similar inputs as outputs and through eternity, the capital-output ratio of this sector has a place provided it is in a balanced relation to other items. In India, the object of the prior development of the heavy industry sector was to take the economy into a prospective Neumann-type tunnel. The idea was to build capital goods in advance to produce capacity for consumption goods later. Such a view which is implied in the Dobb hypothesis postulates the outputs of the capital goods sector to be jelly, this means that the heavy industry sector itself has the property of jelly capital stock. Unfortunately this has not been so. There is no such item like the Mother Machine. From the beginning it should have been clear that whereas some goods are more versatile than others, the relationship be-

tween the Indian capital goods sector and the consumption goods sector was very tenuous.

The capital goods sector that we have built is not self-reliant from within for all its requirements for further production of capacity; besides the demand for the growth of such capacity has to be of the self-same form. This implied that trouble was in store for the Indian heavy sector. This has actually come to pass. These industries were not set up from comparative cost considerations. Their export earnings also are not high. The persistent recession into which this industry has got is clear proof against deeming the index of such capacity-creation as an element in the 'pace' of development. There is no evidence of feasible excess capacity in the realm of power capacity, transport supplies and port capacity and irrigation overheads. We cannot term a higher physical rate of development in some of these items as constituting an evidence of the 'pace' of development. Besides, the very regional spread of production makes it necessary that for the output of each commodity the load on transport capacity becomes greater. The ton-mile increases per unit of commodity. Similarly with the greater spread of mechanisation, the use of electric power per unit of final commodity goes up. We have no reason to conclude that our capacity to grow is rising as a result and at a higher rate than the growth rate of output. In fact, for every given extent of increase in the output of a final commodity, the index of intake of economic overheads tends to go on rising.

One common claim that is adduced for the development process is that the economy has become more self-reliant now than it was in 1950-51. The measure of this self-reliance is sought in the change in the proportion of imports to total supplies in the different commodities. This measure is not exhaustive. Supplies are deemed to be in equilibrium with demands; it is possible that dependence may have been reduced in one process but introduced in another. Even so, the data as given in successive **Economic Surveys** do not carry the point regarding self-reliance. In regard

to foodgrains it is only since 1969-70 that the relative share of imports has fallen below 4 per cent of supplies, barring the first two years of the First Plan, the relative share of imports was quite low in the other years of that Plan. In cotton, there has so far been no firm tendency towards self-reliance. The problem has relatively eased because of a rate of growth of textiles production lower than what would have taken place otherwise if the distribution of income in India had benefited in an increasing measure the poorer strata. There have been some efforts towards increasing the supplies of jute from domestic sources, but the jute that we were importing from East Pakistan was of a superior quality. Anyway, the output of jute goods itself has not been growing at the desired rate. In recent years the investment process has slackened, hence the demand for steel has not grown at the desired rate. Even then we have become heavily dependent on imported steel in recent years. There has been a slump in imports of various sorts of capital goods because of cut-back in project aid and the slip-down in the investment process. There is no reason to believe that the relative share of imports of all capital goods to total demand thereof under the postulate of say a 14 per cent ratio of net investment to national income would have been less than in the earlier years. There are a number of commodities in which the dependence has shifted from a material at a later stage to one at an earlier stage. The ratio of imports to gross national product was about 6.8 in 1950-51 and averaged about 7.2 per cent during the First Plan. During the Second Plan it went up to 7.5 per cent. During the Third Plan its average was about 6.3 per cent. Between 1966-67 and 1970-71 it has averaged about 5.6 per cent. But we must remember that particularly since 1966-67 there has been a serious cut down of imports because of the devaluation and the investment-slump. The relevant question in the present circumstances would be, what are the maximum feasible requirements of imports for purposes of production inputs under the postulate of full capacity use and a high ratio of investment to national income? Our guess is that in 1970-71 the minimum limit

of ratio of imports to gross national product would be above $7\frac{1}{2}$ per cent. In other words, there is no reason to believe that the Indian economy has become more self-reliant in terms of import dependence. The two years in which imports as a ratio of national income reached the above limit were 1957-58 and 1966-67. In both these years, as well as in 1960-61, the ratio of imports was equal to or above the limit of 7.5 per cent. If we look at the figures regarding ratio of export to GNP we find a sorry picture. This ratio was about 6.3 per cent in 1950-51, and averaged about 6 per cent during the First Plan and about 4.8 per cent in the Second Plan. It averaged about 4 per cent in the Third Plan and 4 per cent during the period 1966-67 to 1970-71. As compared to the period during the First Plan there has been a serious slip-down in this ratio. Whereas during the First Plan a measure of import surplus as a ratio of GNP was about one per cent, the desired measure of import surplus around 1969-70 and 1970-71 would have been about 3.5 per cent of GNP.

We, therefore, submit that the evidence in regard to trade does not bear out a structural change in terms of a growing measure of self-reliance. Because of the green revolution we have been able to be less keen on making good the import-surplus gap. This does not mean that the economy has become less import-dependent. At the same time we must not forget that a high measure of our export earnings of about 25 per cent to 30 per cent, has to be earmarked for interest and amortisation charges on the loans we have taken. If we make allowance for this factor the import surplus gap for full utilisation and full investment would amount easily to about 5 per cent of GNP in 1970-71.

We may now turn to the issue of changes in the monetary and finance sphere. It is not possible to adduce satisfactory evidence regarding the occurrence of structural changes in the degree of monetisation, the pattern of financial asset-preferences, the division of income between rural and urban sectors, the ratio of each balance to income, the proportion of kind wages to total wages, the degree

of financial integration etc. The three-year moving averages of income-velocity of currency and of money have remained constant between 1950-51 and 1970-71. The proportions of currency and demand deposits to money supply have remained more or less the same. The constancy of the share at current prices of income contributed from agriculture over this period implies possibly no changes in the degree of monetisation and possibly in the relative shares of rural and urban incomes. The rising ratio of bank credit to national income is a reflection of the rising ratio of gross value of output of organised industrial sector to total gross value of all outputs. The persistence of the high price of gold and the continued evidence of gold smuggling point to the absence of fundamental changes in asset-preferences. The medium for storing value is not money but simply goods and gold. The proportion of holding of Government bonds by the public to total outstanding bonds was low even in 1950-51, thereafter these were getting continuously reduced. As I have tried to argue in my memorandum to the Banking Commission, there is no evidence of a greater spread of banking habit in recent years as compared to the earlier years. What is most distressing is the greater and greater proliferation of Government and RBI sponsored financial agencies in a context in which the ratio of savings to national income has been going down. In fact, most of the agencies are lending agencies rather than genuine intermediaries between the public and borrowing institutions. The market for the bulk of the bonds and liabilities of these agencies is the financial institutions, and the source of funds too is indirectly from the Governments, the RBI or the other financial institutions like banks, ICICI, Finance Corporations etc.

There has been a hiatus between the level of the interest rates prevailing in the unorganised sector and that prevailing in the organised financial and money markets. Thus contacts with the latter are a source of intermediational profit and there is no effective credit regulation policy which can affect even the organised borrowing sector. We are

thus not in a position to claim evidence of any major structural change in the monetary and financial spheres.

IV. Has the development process been efficient?

How do we measure the efficiency of the process of development? Have there been fundamental technological changes during the period under observation? The available data are not satisfactory for answering these questions. However, an effort will be made to derive some broad generalisation. We have earlier indicated the nature and distribution of capital stock as at the end of 1950-51, 1960-61 and 1968-69. It should be possible for us to obtain the value of the capital coefficients or the inverse thereof, the output-capital ratios. In 1950-51 the overall capital-output ratio was 2.43:1; it was of the same value in 1960-61, but by 1968-69 it had moved up to 2.83:1. The output-capital ratio was 41 per cent in 1950-51 and came down to 36 per cent by 1968-69. There was thus a decline of about 14 per cent during the two decades. We have noticed earlier that during the second decade capital stock grew faster than real national income.

It would be useful to obtain information regarding the incremental coefficients. Between 1950-51 and 1960-61 the incremental capital coefficient was 2.43:1. But between 1960-61 and 1968-69 its value was 4.36:1. The productivity ratio had fallen from 41 per cent to 25 per cent, that is, a decline of the order of about 40 per cent. The incremental capital-output ratio in 1950-51 and 1968-69 was 3.31:1.

There is clear evidence that diminishing returns on investments are occurring in the economy. From this one may jump to the conclusion that this bears out the early classical model of economic growth under Indian conditions. As noticed earlier the Indian economy has witnessed a substantial shift in the pattern of investment; the composition of capital stock has shifted against agriculture and in favour of industry and the related overheads. As this was part of the planning strategy itself the state of diminishing returns to investment cannot be deduced as the direct consequence of the natural process of capital accumulation on land. It

is possible that the classical type of diminishing returns has been also in operation but the Indian planning strategy has not been concerned much with this problem

It is necessary to obtain information regarding the behaviour of sectoral capital output ratios Table 3 gives the relevant picture

TABLE 3
SECTORAL CAPITAL-OUTPUT RATIOS

	1950 51	1960 61	1968 69
Agriculture	1 1	1 1	1 33
Industry and mining	2 7	2 7	3 22
Economic overheads (power transport housing etc)	5 8	5 8	5 10

It would appear from Table 3 that a rather steep rise appears to have taken place in the capital-output ratio of industry some rise has also taken place in agriculture We also notice that the values of the ratio are quite high with regard to the economic overheads sector The Char study referred to earlier gives some interesting data regarding the values of capital output ratios of different sectors

Both Tables 3 and 4 point out that the average productivity of capital has been going down with the consequence that the investment to increment-in-output ratio is moving up The fact that the pattern of investment has drifted from its natural course does not connote that diminishing returns would not have occurred, what we would have possibly noticed in that context would be that uniformly the values of the productivity coefficient would have been higher, the income growth would have been greater As the bulk of the increment in income would also connote the supplies of goods which enter into basic consumption and go into the wage fund the incidence of poverty and unemployment would have been considerably reduced, but diminishing returns would have still been there though its incidence would have been less

TABLE 4
SECTORAL INVESTMENT OUTPUT RATIOS

	1955-56 to 1951-52	1955-56 to 1960-61	1960-61 to 1964-65	1951-52 to 1964-65
Agriculture	1.16	1.29	1.48	1.32
Mining and manufacturing	1.48	3.75	4.01	3.34
Power	20.94	19.75	19.07	19.61
Transport	6.66	10.83	10.92	9.94
Social services etc.	1.80	1.75	1.97	1.84
All sectors	1.78	2.61	3.09	2.57

What can be the explanation for the rising capital-output ratio? First is the technical nature of the relation between input and output in industry, power and transport. There is no way to get over this phenomenon. Agriculture tends to have a low ratio as the work of man is assisted by nature in this area. A second reason is that the development of industry requires heavy economic overheads as also social overheads like housing, which have no plough-back impact. A third factor is that a bulk of the projects in mining, manufacturing, power and transport were financed by foreign aid. Many were turn-key projects. In many cases there were tied-in imports. The project costs weight, therefore, has become high. Finally, there is that impact of possible excess capacity and under-utilisation; but this is a structural problem and cannot be overcome. It has not always been the case that the most modern technology has been introduced in these projects. Could these factors have been overcome if the pattern of investment had been oriented to agriculture? It is clear that the foreign exchange component would have been less here. According to the data given in the Char paper, the component of machinery in agricultural projects was just 28 per cent of the total cost, whereas it was 50 per cent and 100 per cent more in power, transport and industry. Similarly the requirements of materials like steel would be negligible in agricultural projects. The component of steel is less than 2 per cent in total investment costs in agriculture, whereas it is 8 per

cent in industry, 20 per cent in power and about 10 per cent in transport and social services. It is in cement that the requirements of agriculture would have been greater, for about 6 per cent of costs would comprise cement, it would be *slightly less* in the other sectors. Char also notes that the labour charges component would be about 36 per cent in agriculture but less than 10 per cent in power and industry, and about 15 per cent in transport. This proves the point that if the investment pattern had been oriented to agriculture in our Plans its progress would not have been held up for want of steel or of foreign exchange. Such a strategy would have also meant substantially a faster rate of growth in employment. Some may consider the non-dependence on aid in such a strategy, as compared to the alternative strategy that we adopted in India, as a weakness of such efforts, but such a deficiency has to be accepted.

Going round and round, we have come back to a discussion of the might-have-been. As there is no evidence that an agriculture-oriented strategy would have led to a larger rise in incremental capital-output ratio, and so large a rise as to have *implied the same extent of increase in income* as obtained from the current investment pattern, the might-have-been is an important issue. We could easily notice that the rate of growth of income would have been at least 50 per cent greater than has been the case. A higher rate of growth of income than what has turned out would have led to a higher ratio of savings to income than has been obtained. This would have led to a still higher rate of growth of income, for the amount of investment effort would have been greater in such a model. As the foreign exchange needs would have been well within our normal export earnings, as during the First Plan, there would have been no need for foreign aid. The dependence on import surplus would not have been there.

But apart from all this, the most significant contribution of the alternative strategy would have been a substantial *increase in the market that supplies basic consumption goods*. As the wage fund would have been growing at a

faster rate and employment in small-scale and cottage industries would have increased considerably, we would have been saved the problem of unemployment; production in agriculture would have become more secure as the agriculture-oriented strategy would have implied the maximum number of projects for the supply of water, bunding, flood control, etc. According to an ancient Indian tradition, society has to care for the well-being not only of human beings but also of domesticated animals like cattle. One of the chief difficulties we have faced is the acute shortage of fodder, which has consequently led to a slackening in the rate of growth of work animals. The economy would have been in a position to build sufficient buffer stocks and the incidence of speculation would have been considerably less. The advent of the Green Revolution would have opened up enormous possibilities for all regions and all groups of farmers. Its progress would not have been held up for want of water.

It must, therefore, be admitted that the inability of the Indian plan process to initiate a process of growth, to cause structural changes and to overcome poverty has been largely due to the very strategy of development which was imposed on the economy. Given the strategy that was adopted all the other consequences were implicit. It was clear that the poverty problem would grow in magnitude and there would be no way by which the emerging physical structure would lead to its solution. The goods would simply not be there for delivery. The development of urban areas, the bureaucratisation of the economy, the concentration of wealth and power—all these results flowed from the strategy. That the existing capital composition is immaterial to agriculture is noticed when around 1970-71 the bulk of industries were in a morass with severe unemployment of engineers, with no production of those goods which would have relieved poverty.

Is there any reason to believe that the alternative strategy would not have enabled the savings ratio to be high and to move up? In fact, the authors of the strategy

which has been adopted contended that a rise in the savings ratio was implicit in the strategy, but actually 1955-56 was one of the best years for the savings ratio. Actually the savings ratio which moved up to about 10 per cent during the period of Chinese invasion has been slipping down continuously thereafter. The ratio around 1970-71 was not much different from that at the beginning of the First Plan. Available evidence indicates that the public and the private corporate sector together contribute less than 2 per cent of national income as savings. The bulk of the public sector enterprises are not earning even a two to three per cent net rate of return. The contribution of the private sector to savings has also been diminishing. The bulk of savings in India came from households and there is no reason to believe that household savings would have been depressed actually or potentially as a result of the agriculture-oriented strategy.

We have examined elsewhere the secular behaviour of the industrial sector. We reached a result therein that the measure of the maximum feasible rate of profits has been falling therein. Part of the tendency was concealed because of the tendency to a reduction in the ratio of inventories to value of outputs particularly in the private corporate sector. The setback to industrial growth witnessed since 1966-67 has not been overcome. The bulk of the sector has become impervious to incentives, the bouts of administered price increases that have been sanctioned and the high incidence of excises are causing structural difficulties in the way of development of export markets wherever possible. Unless a substantial breakthrough occurs in agriculture bringing down measures of labour costs, of raw materials and of food, we do not know when and how industry as such can revive. It is true that given a measure of persistent inflation with no fresh expansions in capacity, a stage will soon be reached leading to contrived viability. But that is not a healthy state of affairs for the Indian economy.

The big issue is: can we bring down the capital output ratio in industry soon? As the stock is already there, tech-

nological improvements are of no help to existing units. We can only increase utilisation rates. It is only indirectly that a reduction in costs of raw materials and of food can help. But that is necessary. For the present we may have to follow Jevons's advice. Treat bygones as bygones. Let us write down capital values and proceed to follow the prime costs rule; this may lead to export earnings which may help in modernisation. But all this is in the realm of thought; for the present we have to bear up with the industrial crisis. We may end by drawing attention to the possibility of reducing the incremental capital coefficient by restructuring the pattern of investment in the residue of the fourth and the subsequent Plans. If we don't achieve this there is no doubt that the Indian economy will reach a stationary state very soon. The continuous rise in the capital-output ratio is clear proof of this possibility.

V. Has the social rate of return in the Indian economy been falling?

One of the most important indicators of the efficiency of a development process is the behaviour of the rate of return. Unfortunately there are several proxies for this measure. We get different values of the rate of return depending upon whether we adopt the market procedures or take a normative or quasi-technological view. In the Indian economy we do not have uninterrupted and undistorted market indicators. The yield on bonds is more a reflection of Government's attitude regarding distribution from one of its pockets to another than an indicator of the pressure of demand for or against supply of funds. The data regarding the corporate sector are more reliable, but this is also affected by changes in tax-laws. Some people believe that the yield of private debenture is a better proxy for the long-term rate than the bond yield. A close perusal of the data of the rate of net profit (after tax) to net worth indicates that the profit rate in electricity generation and supply is perhaps a more dependable indicator. It is difficult to perceive any distinct trend here from 1950-51 to 1968-69. The lowest value has been about 6.8 per cent and

the highest about 10.9 per cent. There is no trend. We would be safe in accepting 7 per cent as a minimum under free market condition (the long-term trend yield has always been below this and by a wide extent). The upper limit in the private corporate sector on an industrywide basis appears to hover between 12 per cent to 15 per cent. We may treat this as the range of the upper limit. The bulk of the public corporate sector obtained a rate of profit of less than 4 per cent i.e. below the bond yield.

For the private corporate sector therefore we may place the relevant riseless yield at about 7 per cent and the yield under various sorts of uncertainty at about 15 per cent. But these are in the organised sector. What about the yield on speculation? We have tried to obtain this information as well. Between 1960-61 and 1970-71 the annual average of the year by year price rise of the commodity with the greatest price rise and of that with greatest price fall comes to about 17 per cent, three times or so of the average of the bank rates in each year. It is well-known that the interest rates ruling in the organised sector which are under the influence of the authorities are less than one-third of the level of the rates prevailing in the market. The bank rate, the deposit rate, the bond rate etc. have no relation to the facts of the Indian economy.

What about agriculture? Unfortunately we do not have any information regarding the profit rates here. Besides, differential rents complicate the picture. On the basis of a study which I made with the help of Dr N. S. Shetty regarding the farm management data I found that around the end of the First Plan the rate of return on a comparable basis with industry was about 12 per cent to 13 per cent. This of course does not take into account the provisions for the maintenance of dependents. It should be possible for us to follow a slightly different procedure in ascertaining the social rate of return from a macro angle. Taking the entire economy the compensation to employees was placed at 31 per cent of national income in 1961-62. The income of the unincorporated sectors was placed at 44 per

cent and income from assets at 25 per cent. Not all income from assets can be deemed to be profit incomes. Part of the share will go for direct taxes and part may be in the nature of differentiated rents. If we deduct the provision for direct taxes, the share of assets income becomes about 20 per cent. In 1961-62 the capital-output ratio for the economy was about 2.43:1. The social rate of return would work out to about 8 per cent, but our calculations exclude the asset-income implied in the income of the unincorporated enterprises. If we assume that 50 per cent of this constitutes asset income and we add to the regular asset income, after making provisions for direct taxes we would get a social rate of return in the Indian economy. If we take a mean between 16 per cent and 8 per cent we would get 12 per cent as the measure of the social rate of return in 1961-62.

Around 1968-69 the average productivity ratio of capital was 35 per cent on the basis that the social rate of return would be about 9.5 per cent. However, as the incremental ratio between 1960-61 and 1968-69 had moved up to 4.36:1, the productivity ratio for investments would be in the range of 23 per cent. The relevant social ratio of return would now have become about 6 per cent.

A terrible conclusion appears to emerge. The social rate of return on investment has come down in 1968-69 to about one half of its average value around 1961-62. As the rate at which capital has been growing is about 4 to 4.5 per cent, there is not much of a margin to squeeze out of asset-incomes, including those concealed in the incomes of the incorporated enterprises. Further measures of squeeze have to affect the bulk of the wage-earners in the organised sector and the salariat including managers. The rest of the mopping up would be wholly a redistributive affair. The unearthing of black money, desirable anyway, will shift ownership of houses and other assets from possibly business to bureaucrats. The real squeeze for the further process has to be on those whom Marx termed the 'lumpen-proletariat'.

DIVERSIFICATION OF AGRICULTURE

By A. S. Kahlon

When India got its independence in August 1947, Indian agriculture was characterised by a low level of farm technology, low levels of yield and farm income and large fluctuations in agricultural production from year to year. The partition of the country further aggravated the problem, as some of the most fertile lands and surplus areas in food production went to Pakistan. From a position of near self-sufficiency India became deficit in foodgrains overnight. To get its agriculture off the ground, India made a good start by giving its agriculture top priority in the First Five-Year Plan. As will be seen from Table 1, the situation eased somewhat by the end of the First Plan, when the index of food production moved up from 90.5 in 1950-51 to 115.3 in 1955-56, that of non-foodgrains from 105.9 to 119.9 and all crops index from 95.6 to 116.8 during the same period (1949-50=100).

The Second Five-Year Plan laid more emphasis on expansion of basic industries and allocated slightly less than 20 per cent of total expenditure to agriculture and rural development and to irrigation compared to more than 30 per cent given to these areas in the First Plan. But this does not mean there was lack of emphasis on agriculture. Irrigation received quite a high priority and net area irrigated increased from 51.5 million acres in 1950-51 to about 70 million acres in 1960-61. It must, however, be admitted that the ambitious agricultural production targets

TABLE I
INDEX NUMBERS OF AGRICULTURAL PRODUCTION
IN INDIA

(Agricultural year 1949-50=100)

<i>Commodity/ group</i>	1950-51	1955-56	1960-61	1965-66	1970-71
Rice	87.9	114.2	137.7	121.6	167.9
Jowar	89.8	96.7	141.1	109.0	117.8
Bajra	83.8	108.3	102.9	117.3	250.2
Maize	84.4	112.3	146.7	172.2	258.3
Ragi	87.6	119.7	121.7	85.8	142.2
Wheat	101.1	131.3	162.8	153.9	344.2
Barley	105.6	118.5	118.0	100.1	120.4
Cereals	90.3	114.9	138.3	124.4	192.4
Gram	98.0	138.9	160.4	108.4	134.6
Pulses	91.7	118.4	129.0	99.9	117.1
Foodgrains	90.5	115.3	137.1	121.3	182.7
Groundnut	101.4	112.4	142.1	129.0	182.9
Sesamum	101.6	104.8	77.2	101.7	136.6
Rape seed and mustard	94.6	105.8	165.7	159.7	241.5
Oilseeds	98.5	108.6	134.0	126.5	181.0
Cotton	110.7	153.9	202.1	176.8	175.8
Jute	106.3	135.8	125.3	135.7	149.1
Fibres	108.6	149.7	176.0	165.2	168.0
Tea	103.8	107.2	120.9	137.9	158.8
Coffee	112.3	196.1	246.4	282.1	477.0
Sugarcane	113.7	119.6	183.9	206.0	211.8
Tobacco	97.3	112.9	114.3	111.1	128.2
Non-food- grains	105.9	119.9	152.6	157.0	181.2
All crops	95.6	116.8	142.2	133.1	182.2

Note: Foodgrain indices for 1966-67 and 1967-68 are based on partially revised estimates, while those for 1968-69 to 1970-71 are based on final estimates.

Source: RBI Bulletin, Vol. XXVI, No. 3, p. 396, March 1972.

and of foodgrains, in particular, were not realised and the food situation of the country became even more difficult during the Third Plan period. The Ford Foundation report on India's food crises and steps to meet them predicted a series food crisis in India in the mid-1960's. The Paddock Brothers predicted famine and these authors of "Famine 1975"¹ argued that "America will have to apply the classical medical triage method like doctors on the battlefield trying to make the best out of minimum resources, she will have to decide which countries to save and which to sacrifice." And India was noted by them as the first to be sacrificed by wiping us off "the Food Aid Map of the United States as a burnt out case." The solitary exception was perhaps the Pearson report, which emphasised that agriculture in India was not neglected during the first three plan periods.

However, once things went wrong and imports of foodgrains increased rapidly from 1955 onwards, the policy-makers found an easy scapegoat in the Five-Year Plans not having allocated enough resources for agricultural development. It is perhaps easy to identify the errors and criticise wrong policies of the past as a post-mortem examination, but what happened during this period to push up the demand dimension for food needs more careful examination than seems to have been done in the past. The total population of the country increased from 361 million in 1951 to 439.2 million in 1961 or 21.5 per cent more than in 1951. After taking into account the rate of the growth of population, the rate of growth of *per capita* income and high income elasticity of demand for foodgrains, the rate of demand for foodgrains was estimated at 2.5 per cent per annum. To this may be added the requirements for feeds and seeds and the waste at various points. Thus, the total foodgrain requirements of the country increased at a rate of 2.8 to 2.9 per cent per annum, whereas the linear rate of growth in foodgrain production during 1952-53 and 1961-

1 Paddock, William and Paul *Famine*, 1975. Weidenfeld and Nicolson, London, 1968.

62 (average 1952-53 to 1954-55=100) was 2.6 per cent per annum and could not cope with the rapidly expanding demand for food.

Perhaps greater success in agricultural production would have come if the country had not put the cart before the horse and had not overdone the community development approach to the neglect of agriculture. Certainly, the nation took a long time to realise that the community development programme was not production-oriented. But more serious than this was the policy followed in the matter of encouraging PL 480 imports of foodgrains which became a measure of the success of the policy-makers instead of the increases in production within the country. Even the agricultural price policy followed during this period did not provide a positive interaction with the other factors which contribute to growth in agricultural production. Almost nothing or very little was done to improve the market structure. All these factors conspired to prevent Indian agriculture from getting over the hump. But in spite of all these constraints, the index of foodgrain production increased from 115.3 in 1955-56 to 137.1 in 1960-61 and that of non-foodgrains from 119.9 to 152.6 and all crops index from 116.8 to 142.2 during the same period. Most of this increase in agricultural production was, however, obtained through extensive cultivation and bringing more and more land under cultivation. Thus between 1951 and 1965, agricultural output grew at 3.1 per cent per annum. This rate of growth consisted of a 1.4 per cent rate of growth in the gross cropped area, 1.33 per cent rate of growth in per acre productivity and 0.37 per cent rate of growth due to changes in cropping pattern. This means about one-half of the growth in agricultural output came from the extension of the gross area under cultivation.

Caught in this situation, the nation embarked upon a new strategy of development, more popularly known as Package Programme or Intensive Agricultural District Programme (IADP). This programme was initially started in three districts during 1960-61 and was later extended to

13 districts. The emphasis on the package approach rather than on individual inputs certainly helped Indian agriculture to improve its performance. But the results were not far-reaching because of the low level of farm technology available to the country during this period. Unfortunately, Indian agriculture suffered abnormally from two extraordinarily bad years, 1965-66 and 1966-67 which resulted in great deterioration in the food situation. From 89 million tonnes in 1965, foodgrain production came down to 72.0 and 74.2 million tonnes in 1966 and 1967 respectively and resulted in heavy imports of foodgrains in the country. Fortunately for the nation, the new seed-fertiliser revolution came about this time and it has indeed put the nation back on its feet.

One would like to conclude that the performance of Indian agriculture from 1950-51 to 1970-71 was not as poor as it seems to have been made out to be. The Agricultural Prices Commission supports this thesis when it says that the growth rate of total foodgrain output at 2.9 per cent per annum since 1949-50 through 1970-71 is no higher than the 3 per cent growth per annum realised during the period 1949-50 to 1964-65. The Commission's report for 1971-72 reiterates that the foodgrains production for each of the years 1967-68 to 1969-70 was below the corresponding values extrapolated for these years on the basis of the trend line for the preceding period, 1949-50 to 1964-65, representing a compound growth rate of 3 per cent per annum. Maybe, it is a belated recognition, but the fact remains that many more research workers are now veering round to the view that the performance of Indian agriculture during the period 1949-50 to 1964-65 was not as poor as some people used to make it out to be. Perhaps, further post-mortem of the situation would result in fastening the guilt on more rapid increase of population and high income elasticity of demand for food rather than the poor performance of agriculture in a country of the size of India.

The development of high-yielding varieties of wheat, rice and hybrids of bajra, maize and jowar, is perhaps one

of the greatest feats of biological engineering. This new farm technology and the intensive use of the modern technological inputs that go with it have considerably improved the food situation in the country. Since the rabi crops are less subject to risk and uncertainty and pests and diseases than the kharif crops, the spectacular achievements came more in wheat production, which increased from 12.3 million tons in 1964-65 to about 26 million tons in 1970-71. Increases in production of rice and other kharif crops were not so spectacular because the kharif crops presented a serious problem of water management. The area under HYVP increased from 11.40 million in 1969-70 to 14.60 million hectares in 1970-71, but of this increase of 3.26 million hectares, the highest was in the case of wheat (1.85) followed by paddy (0.89) and bajra (0.33). A significant development in this context is that the coverage of rice under HYVP in 1969-70 was 4.34 million hectares against the target of 3.24 million hectares, while in 1970-71 the coverage was expected to increase to 5.50 million hectares against the target of 4.45 million hectares.

The acreage under high-yielding varieties of rice did not expand as rapidly as in the case of wheat because assured and controlled water supply was essential for a profitable cultivation of high-yielding varieties of rice, whereas only 20 per cent of the area under rice was irrigated. The average yield of rice was much higher in such States as Tamil Nadu, Andhra Pradesh, Punjab, Delhi and Jammu & Kashmir, where the proportion of irrigated area under rice was 85 per cent and above. The yield declined as the proportion of irrigated rice declined, and in such States as Uttar Pradesh, Rajasthan, Orissa, Maharashtra, Madhya Pradesh and Gujarat, where the proportion of irrigated area under rice was less than 25 per cent, average yields were very low, which made rice cultivation less profitable.

The future of high-yielding varieties of rice in most of the rice growing States depends upon the development of fine-grained good cooking quality varieties and improve-

ments in the post-harvest market technology. Another important factor which affects the future prospect of high-yielding varieties of rice is their relative spread in the monsoon *versus* non-monsoon region. The benefit/cost ratio will still continue to be in favour of cultivation of the *non-monsoon* region. This is because during the monsoon period, yields and income are lower and more variable than during the dry season.

Last but *not* the least important is the management factor, which makes an important contribution to the successful cultivation of all the crops, but is all the more important in the case of the rice crop. This is because there are many more critical stages in the cultivation and marketing of this crop and unless adequate managerial ability is available to take care of all the stages of production and marketing, the cultivator can end up with losses rather than making profits from the cultivation of high-yielding varieties of rice.

A statistical analysis of the relative contribution of rainfall and the new technology indicates that the new technology added approximately 3.5 million tonnes to the production of foodgrains in 1967-68 and 6 million tons in 1968-69 to what could have been expected from the traditional technology under normal weather conditions. There would be better appreciation of the contribution of the high-yielding varieties and hybrids towards solving the food problem of the country if it were realised that the major contribution towards the growth rate in production till 1964-65 came from the extension of area. Thereafter, increases in production came mostly from increases in productivity which can be largely attributed to adoption of HYVP and hybrids and the positive interaction of incentive producer prices and the new farm technology.

A recent study² showed that the uptrend in the growth rate of wheat production was not only due to an upward

² Kahlon A. S. "High yielding Varieties Programme in India" 1971-72 (being printed by the F.A.O.)

shift in the growth rate of yield but also in the growth rate of area. If the area under wheat is to be cut down in the Fifth Five-Year Plan, much more intensive application of modern inputs will be needed to maintain wheat production at a higher plateau.

Imbalances in Indian agriculture

The recent breakthrough in farm technology was more or less limited to wheat, rice and hybrid bajra, which has helped the country to sustain the growth rate of foodgrain output. But in the absence of a breakthrough in technology in such cash crops as sugarcane and cotton, their production has declined. The index of production for cash crops in 1970-71, compared with that for 1964-65, shows an increase of less than 0.5 per cent per annum. This is because the cash crops lost acreage to foodgrains not only in a relative sense but also in the absolute. In the case of cotton, its acreage declined to about 7.5 lakh hectares from 1964-65 to 1970-71. Special intensive programmes for such cash crops as cotton, groundnut and jute were organised for 12 million acres (gross) by 1970-71, but they have not made an impact because the yield potential of the available varieties is not very high. Again, an imbalance was created in the production of cereals and pulses because of the diversion of about 4.5 million hectares from pulses to the production of cereals. Since the existing varieties of pulses are potentially low yielders, they cannot fit into profitable crop rotations.

After having attained near-self-sufficiency in foodgrains, it is maintained that all further increases in the production of foodgrains should come from increase in productivity rather than from any shift in acreage from other crops. The fact that the solution of the food problem seems to be in sight does not mean that the food problem is completely solved. To stabilise the yield at higher levels, the emphasis should shift to further improvement in agronomic practices and improving the quantity and quality of the technological inputs and particularly on augmenting the energy input.

The mid-term appraisal of the Fourth Five-Year Plan showed that consumption of fertilisers was lagging significantly behind the targets. The inadequacy in the increase in fertiliser consumption in the first two years of the Fourth Plan is also brought out by the fact that in the additional area covered by high-yielding cereal varieties during these years, it is estimated that the actual dosage of fertiliser application was only about half of the recommended dosage in the case of nitrogen, about one-fifth in case of P_2O_5 , and about one-fourth in case of K_2O . This large, as yet unexploited potential, for future fertiliser consumption is one of the primary reasons for confidence in achieving a 5 per cent annual agricultural growth rate in the future. Intensive and balanced use of fertilisers and integrated pest control measures should also reduce interplot variations in yield, which still remains the bane of Indian agriculture. The difference between the best and the average farmers is much wider in India than in technically advanced countries. Research should therefore, be intensified to stabilise farm yields and income at a higher plateau. L3

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Energy input requirements 112142

The future of Indian agriculture depends upon the increase in productivity per unit of area and per unit of time. The development of new high-yielding varieties and hybrids has made multiple and relay cropping a feasible proposition. But this can become a practical proposition, only if energy input requirements under the new system of farming are met, not by imported technology that is not suitable to the size of the farm in India, but by evolving development oriented mechanisation. Our studies on farm mechanisation show that the 14-20 horse power tractors are most economical even for large farms in Ludhiana district. We should, therefore, develop a farm machinery system which would considerably reduce the unit cost of production and increase output and human employment but reduce the bullock labour requirements. Such a development-oriented mechanisation will increase the scope of expanding

such agricultural operations as land levelling, laying of underground pipes and lining of water channels, which were earlier not possible with bullock power.

Co-operative management

In a country where the size of the holding is very small, water management is poor and plant protection measures are lagging behind, co-operative management offers great promise. Due to wide variations in pest attacks over time and space, the benefit of prophylactic measures would be more certain, when undertaken over a larger area and on a regular basis, than when undertaken in a given farm and in fits and starts. According to Mallor "the whole problem is compounded by a system of social and community structures, as well as physical fragmentation of farms, which makes it difficult for Indian villages to co-operate in building irrigation channels or drainage ditches and in handling other aspects of collective water management." It is high time that some experiments in co-operative management are tested on a pilot basis in the country.

Diversification of agriculture

Recognising that in a vast country of the size of India, some states will be agriculturally more developed than the others, it is highly important to diversify agriculture, particularly in such States as Punjab, Haryana, Western UP, where surpluses of food production necessitate further diversification of agriculture. Keeping in view the high income elasticity of demand for dairy and poultry products, the emphasis should shift on the rapid development of these enterprises. No systematic work on the synthesis of a new breed of cow has been done in such states. No information worth the name is available as to what would happen by the **inter-se** mating of the hybrid progenies and as to what is the correct level of the exotic blood, which will suit different areas of the country. It is estimated that 22 million cross bred cows, each capable of yielding of 2,500 litres of milk in lactation, could produce the total requirements

of milk in the country, whereas 54.67 million cows and 26.12 million buffaloes are at present unable to meet even half the requirements.

Again, the crux of the problem in dairy development is to develop the necessary infrastructure in the milk marketing system, which would provide the needed stimulus for making dairy enterprise more profitable. The development of transportation and storage and processing facilities widens the market for all farm products, but more so for dairy products. There is thus an urgent need for building up a market structure which would provide stimulus to the economic development of dairy enterprise in the country.

A new technology for dry farming areas

Finally, the new technology is sharply skewed in favour of wet farming. About 75 per cent of India's cultivated area is rainfed and even if all the available irrigation resources are utilised, no less than 60 per cent of the area will continue to be rainfed. Dry farming research, though very scanty, has shown that it is possible to obtain 4 to 6 quintals of moong per hectare and 30 quintals of jowar per hectare from the same land by following the multiple cropping under dryland farming at the Agricultural Research Station, Podalkar.

The experimental work done at the Dry Farming Research Main Centre, Central Arid Zone Research Institute Jodhpur, during the 1971 kharif season showed that the dryland crop cafeteria, comprising cereals, grain, legumes, oil-seeds and forage grasses has a great promise in the dry farming areas. The high value crops like sunflower, castor and groundnut could now be successfully grown with profit on dry land. In the case of cereals, the return on investment in fertilisers was the highest for jowar (CSH 1) being Rs 4.03 per rupee. Even in the case of bajra (HB 3), which was the principal cereal crop of the region, one rupee invested in fertiliser use resulted in a return of Rs 1.30. The dryland crop cafeteria at the IARI showed that in the

kharif season, castor gave the highest return of Rs. 2,250 per hectare. Arhar came a close second with a net profit of Rs. 2,245. In the rabi season, the highest net income of Rs. 2,406 per hectare was earned by sarson. Research should be intensified to develop suitable technology for inoculation of groundnut with *Rhizobium* under dryland farming conditions and particularly refinement of water harvesting technique should receive high priority.

Institutional adjustments

The institutional structure may not be a pre-requisite to the adoption of high-yielding varieties or any other agricultural innovation, but the fact remains that such States as Punjab, Haryana and Tamil Nadu, which have a higher rate of adoption of high-yielding varieties have a much better institutional structure than the other States. Our institutional structure should be reorientated to eliminate institutional biases against small cultivators and provide safeguards in these institutions to ensure that the small farmers are no longer exploited by the well-to-do farmers. This should make it possible for all cross-sections of the farming population to raise their farm incomes and make Indian agriculture much more progressive, productive and profitable.

CORRECTION OF IMBALANCES IN PRODUCTION BASKET

By Dharm Narain

The first decade of planning for agricultural growth was characterised by what was essentially a movement within the framework of existing technology, relying in the main on institutional reforms and extension of irrigation. The institutional reforms aimed at reducing the disabilities of tenure, farm size, marketing and credit from which the Indian farmer suffered, as also at creating an organisational infrastructure for promoting positive measures for growth. These objectives were sought to be achieved through land reforms, extension of a network of co-operative and marketing societies, and the programmes of community development and extension services. The implementation of the programme of land reforms revealed important weaknesses. Large-scale eviction of tenants and the emergence of oral leases tended to defeat the objective of conferring ownership rights on the tenants and of providing them with security of tenure. The implementation of the legislation on land ceilings was rendered almost completely ineffective through the formal transfer of land by its owners to their sons and relatives so as to evade the provisions of the law. The working of the co-operatives was characterised by inefficiency and the resources they provided were largely sucked in by the already well-to-do and influential stratum of the agricultural community. The community development programme spread its resources over a wide variety of welfare

and other activities, lacking in consequence a sharp focus on programmes for increasing agricultural production, and its benefits too accrued more to the upper than to the lower segments of the rural community. The failure of these programmes, however, looks more pronounced when viewed from the standpoint of their egalitarian objectives than from that of their bearing on growth. This is particularly so if one tries to identify the casual factors that may have contributed to the growth rate of agricultural output realised during this period.

Compared with the half a century preceding Independence, agricultural output during the first decade of planning did register impressive gains. It grew at the compound rate of around three per cent per annum, half of which was accounted for by the extension of cropped area and the other half by increase in productivity per hectare. So long as a sizable potential for the expansion of cropped area existed, as it did in the early fifties, the task of achieving growth was relatively simple. But this source of growth was fast drying up: cropped area which was expanding at the linear rate of 2.5 per cent per annum from 1949-50 to 1955-56, grew at only one per cent per annum from 1955-56 to 1960-61. If, despite this decline, the growth rate of agricultural output could be maintained in the latter half of the decade, that was because of a much faster rise in per hectare productivity. The index of cropped area with 1949-50=100, which had risen to 115.0 in 1955-56 rose to only 120.8 by 1960-61. As against this, the index of productivity which, having risen to the modest peak of 104.2 during the First Plan period, stood at 101.6 in 1955-56, rose to the next peak of 117.7 in 1960-61.

At the present stage of knowledge it is difficult to be certain about the factors that led to this spurt in per hectare productivity. It is true that as a result of the programmes for extending irrigational facilities, the gross irrigated area increased from 22.6 million hectares in 1950-51 to 27.9 million hectares in 1960-61. But since the total gross cropped area itself registered an increase from 131.9 million hectares

in 1950-51 to 152·7 million hectares in 1960-61, the proportion of irrigated area in the gross cropped area rose only moderately from 17·1 per cent in 1950-51 to 18·2 per cent in 1960-61. The expansion of irrigation certainly contributed to the growth of the cropped area by facilitating increases in net sown area as well as multiple cropping. And by inspiring shifts in the cropping pattern in favour of high value crops, it also exercised a favourable effect on per hectare productivity. But since the larger part of the increase in productivity was due to increases in per hectare yields than to changes in the cropping pattern even when a liberal allowance is made for the response of yield to expansion of irrigation, the latter would not seem to account for more than a limited fraction of the increase in per hectare productivity. Nor indeed would the rise in fertiliser consumption explain more than a fifth of this increase. A sizable part of the increases in productivity would thus seem to have been brought about by the spontaneous efforts of cultivators through the intensification of labour input and a more effective use of traditional technology. And it is here that the institutional programmes seem to have played a part.

The legislation for the abolition of intermediary tenures was largely implemented during the period of the first two plans. Some three million tenants, sub tenants and share croppers acquired ownership of more than 2·8 million hectares, on payment of the purchase price of land. In addition, there were tenants who acquired occupancy rights on the land they cultivated, thus becoming its virtual owners. And even when tenants were evicted, a great deal of the land so resumed was brought under the self-cultivation of its owners. The upshot of these developments was that the divorce between the ownership of land and its operation diminished and even when an allowance is made for a possible under-estimation in the statistics of leased-in area, it would seem that by 1961-62 the bulk of the cultivated area came to be owner operated, thus reducing the inhibitions in taking to improvements which could lead to increases in per hec-

ture productivity. Since parcelling of small holdings is an important impediment in effecting improvements on such lands, it may be mentioned that 10.8 million hectares were consolidated during this decade. A great deal of credit was pumped into the agricultural economy through the credit co-operatives, the loans advanced by these co-operatives having expanded from about Rs. 230 million in 1950-51 to more than Rs. 2,000 million by 1960-61. Whatever its other shortcomings, the community development programme did, through publicity campaigns and dissemination of information for improved cultivation practices, create a climate favourable for growth.

As the decade of the 1950's came to a close, it became clear that the burden of accelerating the rate of growth, in fact, of even maintaining it, had to be borne by increases in yields per hectare, and a sharp rise in yields could not be brought about within the framework of the existing technology. The technological base of agriculture had to be lifted up and this required a multi-pronged attack: modern inputs had to be made available, the farmer had to be motivated to take to their use, he had to be supplied the necessary know-how through an effective extension service and had to be provided credit to finance investments in these inputs. All this required a concentration of resources over limited areas where the pay-off could be expected to be the highest. A principal limitation of the previous programmes had been that they spread the resources thinly over a wide range of activity and over too wide an area. This new approach underlay the programmes of agricultural development in the Third Five-Year Plan. Embodied in the Intensive Agricultural District Programme, it was to be tried out in a limited number of selected districts from which experience could be gathered and lessons learnt for extending it, although at a lower level of intensity, to much wider areas. The latter stage of the programme was called the Intensive Agricultural Area Programme. For the pilot phase, such districts were to be selected as were favourably placed in respect of the

infrastructure facilities and assured availability of water, it was only in areas where the incidence of natural hazards was the minimum that the farmer could be induced to undertake investments required for the intensification of modern inputs

The experience with the progress of the programme revealed the soundness of the basic approach, in the seven districts where the programme had been in operation for a longer period, the average production of major foodgrain crops as well as their per hectare yields showed themselves to be higher during the period of operation of the programme compared to the pre-package period. The intensity of input use as well as production performance in these districts turned out to be better than in the comparable adjoining districts. As between the districts, however, the success achieved was uneven, besides taking the districts together, it was rather limited. An important reason for the unevenness in performance lay in the faulty selection of the districts: some of the districts selected did not satisfy the criterion of adequate availability of assured water supply. The basic factor underlying the limited success of the programme, however, was the fact that the programme revolved largely around the intensification of fertiliser use which could be increased up to a point, but not beyond it, in the context of the available improved varieties of seeds. For rapid increases in fertiliser consumption, what was required was the development of seeds whose additional yields could justify a profitable use of much larger doses of fertilisers. It was only when the dwarf Mexican varieties of wheat and certain imported exotic varieties of rice along with the hybrid varieties of millets and maize emerged on the scene that the situation promised to undergo a more radical change.

The new phase was characterised by the launching of the High-Yielding Varieties Programme which was essentially an extension of the package approach now crucially revolving around the new seeds. Ever since 1966-67 when for the first time these seeds were released on a significant

scale, the area covered by the high-yielding varieties has been steadily on the increase. The foodgrain output too registered increases to attain the highest-ever peak of nearly 108 million tonnes in 1970-71 enabling the country to dispense with the concessional imports of foodgrains. The achievement is significant but does not warrant any complacency. For even with these increases, the growth rate of foodgrain output already realised between 1949-50 and 1964-65, the year of peak production immediately preceding the High-Yielding Varieties Programme, has barely been maintained. But while this is the global picture, the growth rate of wheat output as well as yield in the recent years has certainly marked a qualitative departure from its historical trend. After successive increases since 1966-67, the production of wheat last year exceeded twice its highest level reached previously. Between 1964-65 and 1970-71, the output of wheat registered a compound rate of growth of nearly 14 per cent per annum and its per hectare yield of 7.5 per cent per annum. While this has been truly an outstanding achievement, bajra and maize have only maintained their past rates of growth and of rice and jowar even this cannot be said. With the output of pulses having gone down from the level attained in 1964-65, there is little wonder that the performance of total foodgrain output in recent years has shown no remarkable improvement over that it displayed in the 15-year stretch since 1949-50.

As against this picture of the maintenance of the past rate of growth in the case of foodgrains, the pace of increase in the output of cash crops has sharply slackened: the index for the production of cash crops in 1970-71 compared with that for 1964-65 shows an increase of less than 0.5 per cent per annum. In the upshot, the growth rate for agricultural output as a whole has suffered a deterioration in recent years. The actual achievement of a growth rate of around 3 per cent per annum in the agricultural sector is also way behind one of the objectives of the Fourth Plan: "to create conditions necessary for a sustained increase of about 5 per cent per annum over the next decade".

If the overall problem of Indian agriculture in the coming years is to achieve a sizable step-up in its growth rate, in its specific aspects the problem is one of correcting certain imbalances that have, of late, been developing within the production basket. The expenditure elasticities of demand for cash crops being generally much higher than those for foodgrains, the slowing down of the rate of increase in the output of cash crops relatively to that of foodgrains has given rise to a major imbalance between these two segments of agricultural production. The decline in the output of pulses has distorted, likewise, the relationship between the cereal and pulse components of foodgrain output. Then again, the imbalance implicit in the rapid growth of wheat production in contrast to the sluggishness in the output of rice is strikingly reflected in the heavy weight of wheat in the buffer stock of foodgrains. Further, these developments pertaining to the product-mix have given rise to an important regional imbalance showing itself in the disparate performance of agriculture in the traditionally wheat growing States and the rest, something like two-thirds of the recent increases in foodgrain output having come from the former group of States.

Since these imbalances basically reflect technological lags, their correction calls for the strengthening of plant-breeding research to provide suitable high-yielding varieties specially for cash crops and pulses. Side by side, the programme for providing for more efficient water control and management through, among other things, the expansion of irrigation—by which hangs crucially the success of the High-Yielding Varieties Programme as also that of promoting multiple-cropping—needs to be vigorously pursued. The problems of the dry-farming tracts are a class by themselves. Although much is being claimed for the dry farming techniques developed by the scientists, little is visible in terms of achievement on the farmers' fields. Unless a sizable programme is mounted to attack these problems, the disparity between the incomes of the farmers in these regions and of those located in areas endowed with

irrigational facilities will progressively widen. Finally, although there is considerable realisation that without deliberate efforts the benefits of agricultural development will not get widely diffused specially among small farmers and landless labourers, the programmes for providing employment and overcoming the disabilities of the small farmer can hardly be said to have got off the ground yet.

INSTITUTIONAL CHANGE, AGRICULTURAL PRODUCTION AND RURAL POVERTY

By V S Vyas

India shares with other Less Developed Countries (LDCs) two common characteristics a preponderantly large rural sector and relatively lower **per capita** income in the rural sector compared with the urban sector. When juxtaposed with the fact of a low **per capita** income in the country as a whole, it becomes obvious that most of the poor live in the villages. Further, as in other LDCs the urban poor are a spill-over of rural poverty. The cityward migration of the rural poor as Gunnar Myrdal has rightly observed, usually implies an increase of squalor rather than a contribution to economic development¹. This explains the major concern of nationalist leaders in the pre-Independence era with the rejuvenation of the rural areas. Men like Gokhale, Tilak, Ranade, Gandhi and Kumarappa had intuitively grasped this reality.

With the beginning of the planning era in this country the interest in ameliorating the condition of the underprivileged sections naturally revived. Such interest however, did not go beyond pious assertions by the policy makers. It was only in the early 1960's that systematic thinking on this aspect of development made an initial,

1 Gunnar Myrdal *The Challenge of World Poverty—A World Anti Poverty Programme in Outline*, Pantheon Books 1970 p 93-94

albeit a feeble, start. Concern for poverty was expressed in two different ways. On the one hand, attempts were made to arrive at an irreducible minimum of the creature comforts and to translate these into their money cost equivalent. The best known of such exercises is the one by the study group set up by the Government of India, which gave its report in 1962. The now famous figure of Rs. 20 **per capita** per month (at 1960-61 prices) as the dividing line between the poor and the rest was suggested by this group. It was also during this period that systematic attempts to study the patterns of income distribution were initiated. One of the earlier studies in this field was by Ojha and Bhatt.² This was followed by a few other studies.³ From the studies of income distribution to a more purposive study of poverty was a logical step.

Since the late sixties a number of careful studies on the dimensions of poverty have become available, the most well-known among these being the study by Dandekar and Rath.⁴ Other economists who have made a noteworthy contribution in this field include Burdhan, Minhas, Ojha and Vaidyanathan.⁵ All of them mainly relied on the National Sample Survey (NSS) data on the distribution of consumption expenditure after adjusting these for savings and direct taxes, though recourse was also taken to National Income data and to other all-India surveys like Agricultural Labour Enquiry and Reserve Bank of India's Rural Debt

2. P. D. Ojha, and V. V. Bhatt, "Distribution of Incomes in the Indian Economy, 1953-54 to 1956-57", *Reserve Bank of India Bulletin* (R.B.I.B.), Sept. 1962. Also their, "Pattern of Income Distribution in India; 1953-54 to 1956-57", R.B.I.B. Sept. 1963.

3. For instance, M. Mukerjee; *National Income of India; Trends and Structure*: Statistical Publishing Society, 1969; NCAER, *All-India Rural Household Survey*, 1962. Occasional paper 13, (1965).

4. V. M. Dandekar and Nilakantha Rath; *Poverty in India*; Indian School of Political Economy; 1971.

5. P. K. Burdhan, "On Minimum Level of Living and the Rural Poor", *Indian Economic Review*, April 1970. B. S. Minhas, "Rural Poverty Land Redistribution and Development", *Indian Economic Review*, Apr. 1970. P. D. Ojha, "Configuration of Indian Poverty", R.B.I.B. Jan. 1970. A. Vaidyanathan, "Some Aspects of Inequalities in Living Standard in Rural India", a paper read at the Seminar on Income Distribution, New Delhi, 1971.

and Investment Survey. The differences in their findings can be mainly accounted for by the choice of price deflators or assumptions regarding population growth or by certain minor adjustments they have made in the NSS data (for example, Dandekar and Rath have marginally inflated the expenditure figures of the middle and rich expenditure groups, as they found that the NSS figures for these groups were not plausible) Besides, most of these studies have covered the period of 1960-61 to 1967-68. The choice of this period has a significance which will be dealt with later

The general burden of the findings of these scholars, a few dissenting voices apart, is that no dent has been made on the problem of poverty For instance, Dandekar and Rath have made a two-point comparison between 1960-61 and 1967-68 and have suggested that from the bottom layer on, the first 60 per cent of the population has barely maintained the *per capita* consumption (at constant prices) in 1967-68 compared to that in 1960-61 The position of the urban poor, according to them, had actually worsened⁶

Burdhan's conclusions are more damning He finds that if an expenditure of Rs 15 *per capita* per month in 1960-61 prices is kept as the basic desirable minimum, the percentage of the rural poor below this expenditure level had increased from 38 per cent in 1960-61 to 45 per cent in 1964-65, 53 per cent in 1967-68 and 54 per cent in 1968-69⁷ The results of other researchers fall in between these two stands, viz a barely perceptible improvement to an alarming deterioration Nobody has maintained that in the decade of the sixties the condition of the rural poor had markedly improved In fact, most of them have concluded that if the same trends continue we will not be able to resolve the problem of poverty in the foreseeable future It should be noted that these conclusions in the majority of cases

6 Dandekar and Rath, *op cit*, p 24-30

7 Pranab K Burdhan 'On the Incidence of Poverty in Rural India', paper read at the Seminar on Income Distribution, New Delhi 1971 (mimeo)

were based on the data pertaining to the beginning and the late sixties. Before one generalises on the basis of the above data, one must enquire as to what had happened during the preceding decade. This is because in a certain sense the first seven years of the sixties were aberrations and not indicative of a normal trend. The China war in 1962, the skirmishes with Pakistan in 1965 and the two very severe drought years of 1965-66 and 1966-67 gave a very unfavourable tilt to the growth of the economy.

As against this, the fifties, especially, after the initial two years, was a decade of steady growth. There is one more reason to recommend a careful look at the experience of the fifties. Some writers have maintained that income distribution as measured by the concentration ratio had become less skewed in the fifties. For instance, M. Mukerjee in his study of Income Distribution in India has shown that the Lorenz ratio for the year 1949-50 was 0.33; in 1956-57 it came down to 0.29.⁸ The concentration ratio as the author himself has suggested does not give us a reliable idea about the position of the "poor" in the total distribution. An independent exercise on the basis of the NSS data reveals the following picture:

	1954-55	1960-61
<i>Percentage of rural population with 'per capita' per month expenditure of</i>		
Rs. 20 (in 1960-61 prices)	65.6	63.2
Rs. 15 (in 1960-61 prices)	45.5	38.5

There is reason to believe that the poverty problem was eased, even though insubstantially, during the fifties, while from all known accounts it was accentuated in the sixties. One needs to look into the other major developments during the fifties which can be associated with this outcome. At least two important changes strike one while

8. M. Mukerjee, *op. cit.*, p. 324. P. D. Ojha has also confirmed these trends in an unpublished study.

reviewing the rural scene in the fifties. In the first place, *agricultural growth had registered a remarkable pace, compared to what had happened in the previous as well as what happened in the following decades.* Secondly, this was a period when major institutional changes took place in the agrarian economy particularly those relating to land tenure. Taking institutional changes first, the country witnessed two major waves of land reforms in the fifties while the third wave coincided with the closing years of the fifties and the beginning years of the sixties. In the immediate post-Independence period around 1948-49, a series of laws was initiated to abolish intermediaries like zamindars and jagirdars and also to provide security of tenure and fair conditions of tenancy to the cultivators both in the ex-jagirdari areas as well as in ryotwari areas. In the mid-fifties once again a number of laws were enacted to give ownership rights to cultivating tenants, that is to virtually abolish tenancy and ensure "land to the tiller". Further around 1960-61 most of the States enacted their ceiling legislation.

Many writers including the author of this paper have commented on the tardy and half-hearted implementation of these laws.⁹ But the fact remains that a major reshuffle in the operational pattern of land did take place. One main consequence of the land reform legislation of this period was a greater convergence of ownership and management of land. This came about because of the decline in the leased area although the process by which this decline took place, that is, *more by the resumption of land by the owners rather than conferment of ownership rights on the erstwhile tenants* was by no means an ideal one.¹⁰ The effect of tenancy legislation is reflected in a marked decline

9 See V S Vyas, *Land Reforms in India—Review of a Decade in A Decade of Economic Development and Planning in India*, (ed M R Sinha) ASP Publications, Bombay 1962.

10 See Dharm Narain, *Changing Agricultural Structure Over the Years—Some Aspects* (Silver Jubilee of Independence Number of Yojana).

in the leased-in area as a part of operated area; leased-in area formed 20.34 per cent of operated area in 1953-54 (NSS 8th Round), it came down to 12.53 per cent in 1959-60 (NSS 16th Round). There is also some evidence of shuffling in the size of operational holdings during this period. The average size of operational holdings came down from 7.53 acres in 1953-54 to 6.65 acres in 1959-60.¹¹ Presumably this came about, mainly, due to a break-up of the bigger farms of the former intermediaries in the wake of the land reforms. What is more important from the point of view of the rural poor, the average size of operational holdings in the lower size groups slightly improved (see table below):

TABLE 1
PERCENTAGE DISTRIBUTION OF AREA OPERATED BY
SIZE CLASS OF OPERATIONAL HOLDINGS FOR 8th AND 16th
ROUNDS OF NSS (RURAL SECTOR ONLY)

	<i>Small size</i>				<i>Large size</i>	
	<i>1 acre</i>		<i>5 acres</i>		<i>50 acres and above</i>	
	<i>Holdings</i>	<i>Area</i>	<i>Holdings</i>	<i>Area</i>	<i>Holdings</i>	<i>Area</i>
1953-54	19.71	1.07	60.00	15.44	1.54	17.01
1959-60	10.42	1.32	62.92	18.88	1.07	12.18

(Adapted from—"A Study of the Structural and Tenorial Aspects of Rural Economy in the light of 1961 Census," by P. S. Sharma, Table 17 (1964) (mimeo))

Apart from land reforms, several other institutional changes were effected during this period. In the field of credit, marketing and extension, significantly different structures emerged at the end of the fifties compared to what the country had inherited at the time of Independence. One can surmise that these gave a more favourable underpinning to the production base in agriculture, though it is difficult to infer their impact on the problems of the poor. Another noteworthy feature of this period was a rather satisfactory growth in agricultural production and incomes. The agricultural production in the period 1954-55

11. Data culled from NSS 8th and 16th Rounds respectively.

to 1960-61 increased at the rate of 3.1 per cent per annum (as against a growth of barely 0.4 per cent per annum in the subsequent seven year period which, as was noted earlier, was the reference period for most of the studies on rural poverty). The agricultural incomes (at constant prices) also increased at the rate of 2.5 per cent per annum. Thus, the coincidence of major institutional reforms, and increase in production with some reduction in poverty is unmistakable.

The period from 1960-61 to 1967-68 presents a picture in contrast. As already noted, there was no significant change in the proportion of the poor in the country during this period. In fact there are indications that their proportion in the total population—and not only the numbers—had increased. This period did not witness any major institutional change. The ceiling legislation of 1960-61 seems to have been completely infructuous if one goes by the meagre area of land acquired by the States after its enactment. Tenancy in its more pernicious form seems to have raised its head once again. Also, as noted above, there was virtual stagnation on the agricultural production front.

From the foregoing one can immediately recognise the strong association between the three phenomena of poverty, agricultural production and institutional change. It is hazardous to deduce any causality in this association. However, as a hypothesis one can suggest the following institutional changes of the type we had witnessed in the fifties that is greater convergence of ownership with operation of land and a slight shift towards the smaller size groups in the distribution pattern of operational holdings, played a positive role in giving a fillip to agricultural production. We further hypothesise that an increase in agricultural production in the setting of the type of institutional change noted above can make some dent on the problem of poverty. It would be readily agreed that without a deliberate policy such dent can be no more than marginal. Finally, in the absence of the conditions noted above the problem of poverty can get further accentuated.

The main lessons to be drawn from the performance of the rural economy in the fifties, particularly the role played by institutional change and increased agricultural production in making a favourable impact on the position of the rural poor, should not be lost on us while planning for the seventies.

INDUSTRIAL DEVELOPMENT A QUARTER CENTURY REVIEW

By Phiroze B Medhora

During the last 25 years industry has developed at a rate both qualitative and quantitative not experienced in the century before. It is necessary to delineate the growth achieved and factors accounting for it and to outline policy lessons for future growth.

I Outline of industrial growth

In 1947 India had a narrow industrial base though in these industries the development was considerable. India had already developed cotton and jute textiles, sugar, cement and to a limited extent the iron and steel industries and the country was self sufficient in these items. At the same time as the Second War showed India was almost totally dependent on imports for capital goods, components and basic metals like aluminium and copper. By 1971 not only had the traditional industries (barring cotton textiles for policy reasons) grown but a more self sufficient industrial base covering manufacture of capital goods, raw materials, intermediate goods and components had been built up. Table 1 shows industrial growth in selected industries. What is more significant India had also built up a considerable intangible infrastructure in the form of designing and fabricating capacity and consultancy services to support the industrial base.

II. Factors in industrial growth

Once the profile of growth is delineated, it is possible to examine the achievements and failures in the field in relation to the policy instruments which were used to foster such growth. The policy was also supported by other measures taken by the Government, particularly in broadening facilities for financing available to the industrial community. The Industrial Finance Corporation of India (IFCI) helped to promote units in the co-operative sector; the Industrial Credit and Investment Corporation of India (ICICI) helped in promoting new entrepreneurs and new processes and products; and the Industrial Development Bank of India (IDBI) has been a major factor in setting up large and priority industries like fertilisers. This is how the infrastructure worked to broaden the base of industry. The major instruments of policy were licensing policy under the Industries (Development and Regulation) Act, import control and pricing policy. In the following sections these three aspects of policy are examined in detail.

Industrial licensing

Perhaps the most original piece of legislation concerning industrial development introduced in India was the Industries (Development and Regulation) Act, 1951. Table 2 shows the number of industrial licences issued.

The Plans laid down different rates of growth for different industries. It was inevitable that such differential rates would not necessarily be in accord with the demand situation in the country. In such a case, it was desirable that the growth of industries in which the investment demand was high was checked by physical control measures, and, at the same time, an attempt was made to promote the growth of industries in which the demand factors were weak. The role of licensing was to ensure such differential growth rates in various industries. The clearest implementation of this objective (of ensuring different rates of growth in various industries) is found in the policy followed

TABLE 1
OUTPUT IN SELECTED INDUSTRIES

	1950-51	1955-56	1960-61	1965-66	1970-71
Finished steel	1 04	1 3	2 39	4 51	4 47
Alloy and special steel	—	—	—	40	200
Aluminium	4 0	7 4	18 3	62 1	168 7
Cotton textile machinery	—	54	104	216	315
Machine tools	3	8	70	294	230
Agricultural tractors	—	—	Neg	6 3	20
Power driven pumps (organised sector)	35	57	109	244	280
Diesel engines (stationary)	5 5	10 4	44 7	93 1	67 4
Commercial vehicles	8 6	9 9	28 4	35 3	41 5
Bicycles (organised sector)	99	513	1 071	1 574	2 084
Sewing machines (organised sector)	33	111	303	430	235
Storage batteries (organised sector)	194	258	515	708 5	1 000
Radio receivers (organised sector)	54	57	282	606	1 830
Electric transformers (33 KV and below)	0 18	0 63	1 39	4 46	6 5
Electric cables (ACSR conductors)	1 7	9 4	23 6	40 6	64 2

Nitrogenous fertilisers	'000 tonnes	9	80	101	232	930.0
Phosphatic fertilisers	-do-	9	12	53	123	229.0
Sulphuric acid	-do-	101	167	368	662	1,116
Paper and paper board	-do-	116	190	350	558	756
Cement	m. tonnes	2.73	4.67	7.97	10.8	14.36
Automobile tyres	m. tonnes	—	0.90	1.44	2.31	4.15
Cotton cloth (mill sector)	m. metres	3,401	4,665	4,649	4,401	4,200
Jute manufactures	'000 tonnes	837	1,071	1,097	1,399	1,050
Sugar	'000 tonnes	1,134	1,890	3,021	3,541	3,765
Vanaspatti	-do-	170.1	280.0	340.2	401.2	525
Petroleum (crude through-put)	m. tonnes	0.2	3.4	5.8	9.4	16.20

in respect of cotton textiles. Cotton textiles was one of the most developed industries in the country at the time planning began, at the same time related industries like cotton textile machinery and dyes and chemicals had not been developed in the country. The Plans sought to slow down the rate of growth of cotton textiles while the rate of growth of allied industries was to be much faster. This was made possible by the licensing policy under which licences for looms were given to a limited extent, licences for spindles were given more leniently, and licences for textile machinery and dyes and chemicals were given liberally. It will therefore, be seen that under planning the rate of growth of mill-made cotton textile fabrics has been very slow that of yarn reasonable, while that of textile machinery and dyes and chemicals has been high.

TABLE 2
INDUSTRIAL LICENCES ISSUED

First Plan	1951-55	998
Second Plan	1956-60	4,794
Third Plan	1961-65	4,560
Annual Plans	1966-68	930
Fourth Plan	1969-71	1,210

The same results are evident in other industry groups. For example, taking three items like textiles, engineering goods and chemicals, it will be seen from Table 3 that the rate of growth of textiles was much slower than the rate of growth of engineering and chemicals. To some extent of course, this is a statistical illusion in that the base from which the textiles started in 1951 was much more developed than the base on which growth is measured in respect of engineering and chemicals. However, as the ASI data show, the actual volume of investment in chemicals and in engineering now is substantial. While these were the initial objectives of the licensing policy, gradually other objectives were added on to licensing policy, among these other objectives, the major ones were to promote employment in cottage and small-scale industries, to promote new entrepreneurs and to promote development in backward regions.

These were not new objectives; to the extent they were already included in the Industrial Policy Resolution of 1948. However, they were new objectives in the sense that licensing policy was sought to be used deliberately to promote these objectives.

TABLE 3
INDEX OF INDUSTRIAL PRODUCTION
(1960=100)

	1951	1956	1961	1966	1970
General index	54.8	78.4	110.6	151.9	180.8
Food manufacturing	66.9	79.6	108.6	129.3	157.5
Textiles	79.7	98.0	103.8	109.3	109.7
Chemicals and chemical products	42.4	63.7	115.9	167.4	236.5
Basic metal	46.5	56.4	118.7	186.5	205.5
Metal products	30.7	74.6	122.3	129.9	219.0
Machinery except electricals	22.2	52.2	126.9	307.4	369.5
Electric machinery, appliances, etc.	26.3	56.5	114.5	233.5	362.7
Transport equipment	19.6	102.8	120.5	163.4	132.0

Protection of cottage and small-scale Industries: At an early stage it was felt desirable to protect industries which used more labour-intensive techniques, like hand-spinning and hand-weaving. As a result of the Karve Committee Report, a policy of common production programme was laid down under which the growth of the mill sector was closely regulated in the light of the needs of the hand-spinning and hand-weaving sector. This was essentially a negative policy in that the growth of the organised sector was sought to be restricted to protect employment in labour-intensive activities. Later, the policy was refined to cover positive measures by which certain activities were specially reserved for small-scale industries. The latest enunciation of the policy is contained in the February 1970 policy statement and subsequent notifications, under which 128 industries are specified as reserved for the small-scale sector.

It is necessary clearly to distinguish between these two aspects of licensing policy. In the case of reservation for

small-scale industries, the objective was not against employment of modern technology, but essentially to decentralise industrial activity. It was assumed that in these lines there were no particular economies of large scale—or not such large economies as would outweigh the benefits of decentralising ownership and larger labour employment—so that these industries would be competitive and would provide goods at an economic cost.

Data on the growth of small industries are not available and it is not possible to measure the success of the policy. By one measure alone, namely, the proportion of value added by the small-scale sector to national income, it is evident that the growth of the small-scale industry has not been at the same rate as the growth of national income or of large industries. The share of small enterprises in national income declined from 9.6 per cent in 1950-51 to 5.4 per cent in 1969-70, while that of factory establishments increased from 5.8 per cent to 8 per cent over the same period. However, it has to be recognised that this is entirely an imputed figure and no census data on small-scale industry and its growth are available. Moreover one must ask the question: what would have been the rate of growth of small industry had such protection and promotional measures not been adopted by the Government?

New entrepreneurship: Perhaps the greatest impact of the licensing policy was in broadening the entrepreneurial base in the country. At an early date, as between new entrepreneurs and established entrepreneurs the licensing policy in fact tilted in favour of new entrepreneurs as in licensing for polystyrene to Kilachands, for nylon to Nanubhais and in many other cases. In a sense, discretion was used in order to promote new entrepreneurship.

Concentration of economic power: In a rapidly growing economy various factors favour those who already have an industrial base: entrepreneurs with experience, financial resources and access to technical and managerial talent. It was

almost natural, therefore, that when industrial opportunities began to rise in the country, particularly after 1958, large industrial groups tried to take advantage of them and, to an extent, succeeded in doing so. This has been a subject of some controversy and considerable debate, with at least four committees—the Mahalanobis Committee, the Monopolies Inquiry Committee, the Hazari Committee under the Planning Commission and the Dutt Committee—reporting on the subject. Of these, the most detailed analysis is provided by the report of the Dutt Committee. Its major findings were that, of the industrial licences issued during 1956-66, about 50 per cent were given to large houses and that these houses obtained between 40 and 45 per cent of the funds sanctioned by industrial finance institutions.

One is not sure if this quantitative analysis proves anything. For one thing, it is not certain if in the absence of licensing the share of large houses in industrial development would have been smaller; in fact, in a free market situation the advantages which established entrepreneurs enjoy can be used much more freely than in a controlled situation. It is also necessary to look into the quality of licensing decisions—particularly into licences obtained by these houses. Most of the licensing in cotton textiles and sugar was in favour of co-operatives. In many industries which did not involve large investment, it was the small and medium-sized entrepreneurs who were able to get the licences. The larger houses, therefore, often went into industries which were capital-intensive or complicated. Thus the Birlas entered aluminium, the Tatas commercial vehicles, and so on; these were not fields in which there was much scope for small or new entrepreneurs to enter, even in a free market situation.

Yet the controversy regarding concentration of economic power has a certain basis and relevance for future policy. To some extent the exercise of discretion in New Delhi was a disadvantage to small entrepreneurs who did not have as easy an access to bureaucrats as the large

houses To an extent discretion could always be manipulated, and many licensing decisions in favour of large houses can be explained only on such basis It was, therefore, inevitable that charges of favouritism towards large houses would be made Initially licensing had very few guidelines, these began to be evolved only in the process of taking decisions on individual applications for licences Gradually such decisions have become modified to result in a kind of licensing policy The controversy regarding concentration of economic power has brought about considerable re-thinking on licensing policy and has led to the enunciation of specific guidelines in respect of licensing decisions

The February 1970 statement on licensing policy lays down clearly the role of various categories of entrepreneurs in licensing Under it large houses are required to take out licences even for setting up units involving an investment below Rs. 1 crore, in respect of units involving an investment between Rs 1 crore and Rs 5 crores, applications from applicants other than large houses are preferred, and finally, in respect of units involving an investment above Rs 5 crores and in core industries, applications from large houses are considered favourably In addition, the setting up of the Monopolies Commission ensures an independent scrutiny of applications by large houses from the point of view of concentration of economic power Experience of the working of the new policy is limited, mainly because it is new and, being new, is controversial, moreover, with industrial stagnation continuing and with considerable distrust between Government and large houses the policy has not had a clear field to operate upon

Regional development. The greatest failure of licensing was in respect of promoting industries in backward regions, in fact, in the first 20 years, industries which were set up in backward regions were not those which were pushed to such regions but those which, owing to raw material availability or other considerations, were bound to be set up in such regions Thus sugar factories have gone into

areas where sugarcane is grown, and paper industries are set up in forest regions where bamboo is available. In the last two or three years, the Government has become conscious of the need to decentralise industries geographically and to use licensing policy to that end. The Government has tried to match this policy with various incentives like allowing even large houses to set up industries if they opt for a backward region. However, the policy needs to be implemented over a longer period to have its impact on decentralising industry.

Even more than the licensing policy, import control has played a great part, as a positive factor, in accelerating the pace of industrial growth in the country. It was the foreign exchange crisis of 1956-57 which led the Government of India into a policy of curbing imports of almost all goods which were being made or could be made in India. As a result of the import cuts announced in 1957 and in subsequent years, considerable investment opportunities were opened up in the country. At the same time, a confident outlook in the private sector made it undertake investment on a big scale in a large number of diversified industries. It is in this period that India developed many non-traditional industries like steel pipes, cast iron spun pipes, machine tools, ball bearings and other engineering goods as also chemicals. The actual phasing of industries and industrial growth in the country is determined by the various Plans. Import policy only determines, in a sense, the availability of imported goods in the country. Import controls were an *ad hoc* response to the foreign exchange situation in the country and have fluctuated with the availability of foreign exchange in the country. Consequently, import policy cannot be considered to be a guiding factor in the policy governing industrial growth followed by the Government.

It is, therefore, in the Plans that one must seek Government's policy in regard to development of industries in the country. From the Second Plan onwards, planning took a positive direction in respect of industrial growth. The

Second Plan sought to promote heavy industries including iron and steel, aluminium and machine building, in order to make growth self-sustaining in the country. In addition a large number of other industries, like paper, cement and chemicals, were to be developed, based on the growing requirements of the industrial sector in the country.

Such a programme obviously seemed to follow a policy of inducing industrial growth through import substitution. It is necessary, however, to distinguish between a Plan policy for developing specific industries and an administrative policy to give import licences and implementing the planning policy. In some respects one sees a clear dichotomy in these two sets of decisions. In a sense Plan policy did not seek to aim at a one hundred per cent self-sufficiency in particular products, and was geared much more to making use of local resources and relied upon factor proportions available locally to promote industries in the country.

Thus the Mahalanobis strategy to develop the iron and steel and aluminium industries was based on the logic that with large reserves of iron and steel ore and bauxite India had an economic advantage in setting up iron and steel and aluminium industries. So also in the case of aluminium, local production costs and selling prices are comparable to international prices. As regards machine-building, India has built up considerable facilities in the field of designing and fabrication. Fabrication of equipment and machine building are activities not carried out on assembly lines and there are no inherent disadvantages in taking up these activities within the country. This was the basis on which the Second Plan opted for the development of heavy machine-building capacity in the country. If the strategy did not pay the dividends expected of it, the reasons for it must be sought elsewhere. Firstly, as regards iron and steel, the present lack of competitiveness of Indian industry arises not out of any economic factors but entirely on account of the incompetent

management of the units in the public sector. The policy of putting bureaucrats into public sector units not only led to uneconomic production costs and low output, but has also led to the discrediting of public sector enterprise in the country and outside. It is futile to blame planning for this phenomenon.

Secondly, self-sufficiency need not imply a hundred per cent manufacture of every commodity imported in the country. There are many fields in which there are no advantages of local manufacture; there are areas where the local market is so small that local manufacture is not desirable. Yet the Government of India has followed a policy of seeking to manufacture locally every small item that goes into a large product. The result is that the industrial effort gets dispersed into making all kinds of products rather than being concentrated in areas in which the country has an inherent advantage in production. The most clear evidence of this phenomenon is to be seen in the stifling of the development of the iron and steel industry in the country. Particularly after 1964 when Government revenue came under pressure (owing to increased defence outlay and inadequate revenue from public sector enterprises), the Government almost stopped plans for the further development of the iron and steel industry in the country (beyond the Bokaro plant which had already been taken in hand), leading to the present shortage of steel. At the same time, even when small elements of material are required, as in the case of alloy steels or special components, Government has encouraged the taking up of the manufacture of these items.

Even when the import policy has been used to shut out import of items which are or could be locally made, there has been no specific matching of import policy with local production. The Government has sought to keep maximum discretion in its hands and to dole out import licences on a six-monthly basis, thus subjecting industry to constant uncertainty in respect of its essential supplies. Moreover, since export earnings have not been rising and

new units continue to enter production, the same volume of foreign exchange has been sought to be distributed over an increasing number of industrial units. This has led to the starvation of many units of their import needs. Such a system has brought about a certain sense of irresponsibility as in industrial licensing when licences were issued freely (as in the early sixties), irrespective of the availability of foreign exchange to meet the current production needs of the industries proposed to be set up. If an industrial licence had been combined with a specific import commitment over the initial period of operation of the licensed unit, it would have been a salutary sanction on bureaucrats who gave away licences liberally.

Pricing policy

Pricing policy has been a major factor in the growth of specific industries in the country. Price control during the war years was intended to insulate some prices from pressures arising out of non-availability of imports and of inflationary trends in the country. Price control in such a situation was a temporary protective measure. This measure was continued during the planning period, but without a full examination of its relevance to a policy of planned industrial development. Price control has a dual impact on production and investment policy. Firstly, it tends to reduce profitability in industries on which price control is imposed, in relation to what it would have been in a free market situation. Secondly, by diverting inflationary pressures on to other products, price control makes production of goods not subject to price control more profitable. As a result, price controls tend to discourage investment in industries subject to them. Price control has been imposed on commodities which are mass consumption goods (cotton textiles and sugar) and in respect of basic goods like iron and steel and cement. While it was necessary to reduce the consumption of these goods and to ensure their equitable distribution during wartime, developmental

objectives are concerned with increasing the production of these vital goods.

In India the basic policy under planning was to encourage growth of industries like iron and steel and cement. In the case of cement, price control tended to retard the growth of the industry, and there was continuous under-fulfilment of Plan targets, the shortfall in relation to the target being 62 per cent under the Second Plan and 45 per cent under the Third Plan. In the public sector, while very often autonomous decisions were taken to set up capacity as in the case of iron and steel, profitability was adversely affected (not to speak of incompetent management) due to price control. This, therefore, acted as a check on the growth of the particular industry. In fact, the pruning of the iron and steel programme after the mid-sixties has partly been a consequence of the poor plough-back of funds in the public sector iron and steel industry, and to that extent price control must be deemed to be responsible for the low growth of the iron and steel industry.

A large part of the burden of industrial growth was placed on the public sector. In fact investment in public sector industry now exceeds investment in the private sector. This was largely a result of the emphasis of the Plans on developing heavy industries which were assigned to the public sector under the Industrial Policy Resolutions. Despite the large role envisaged for the public sector, the Government did not work out the managerial or policy requirements for the successful development of the public sector. As a result, as regards management, civil servants considered this to be an extension of their sphere of influence and employment for themselves. Civil servants who treated jobs in public sector enterprises as a brief interlude in their civil service career failed to provide the necessary leadership to the public sector units. The result was that many units took a long time to set up and were incompetently managed after they were set up. It is only now that the Government has required civil servants to choose between their public sector and civil service careers. This has been

only after considerable damage has been done to public sector investment already made and to the image of the public sector

So also the Government's pricing policy has worked to the disadvantage of the public sector. Price control has operated in a large number of industries in which the public sector has taken interest. To the extent that such products have been sold to the private sector it has meant in effect a subsidisation of the private sector by the public sector. The policy has denuded the public sector of the opportunity of taking advantage of the market forces brought about the poor performance of public sector units and deprived the public sector of resources for its expansion.

III A new industrial policy

If lags in various sectors are measured India's lag in industrial production (or supply of industrial goods per capita) is the largest in relation to advanced countries. In the next 25 years therefore industry will have to expand much faster if India is to make economic progress. It is desirable that an outline of a new policy is laid down if industrial stagnation is not to continue any longer. Such a policy should seek to improve the efficiency of the public sector, to harness all industrial forces to expansion and to prevent waste of foreign exchange or local production capacity. The country has come to one stage in its industrial growth. This stage shows some weaknesses in the driving force in industrial growth. In the earlier phase it was the stoppage of imports which was the main factor in accelerating investment in industry. The impulse of this factor has worked itself out and the situation during the last seven years shows the need for a new driving force to accelerate the rate of growth in industry.

Government as a source of demand

In India the Government is a major source of demand for a large number of products. Almost in all countries Government administration by itself involves a consider-

able demand for industrial products; in countries like the US and the UK, defence is a major factor in demand for industrial goods. In India the influence of the Government is more pervasive because of the fact that, besides being engaged in administration, the Government is a major investor and producer of industrial goods and is, therefore, a factor in demand for such goods. The Government controls railways, steel plants, fertiliser factories, electrical plants, manufacturing units, and all these appear on the market as a source of demand for industrial goods.

The stagnation in industry during the past six years is partly due to the fact that Government is no longer increasing its demand for industrial goods. In many industries like railway wagons, paper, cement, steel structurals and machine tools, the failure of the Government to increase its demand has led to the present stagnation in many industries. If industrial revival is to take place, the Government's investment in industry needs to be raised above the present level. The setting up of the three steel plants is likely to create a considerable demand for structurals and many other industrial products. Similarly, the Government's attempts to improve clean water supply facilities will create a demand for cast iron spun pipes. In formulating the Fifth Plan this aspect should be taken into account in the investment programme.

Requirement of investment

Secondly, it is necessary to raise the question whether the Government can allow industry any latitude in not investing. To an extent, the Government protects industry from external competition by means of its import control policy, it also protects industry from internal competition by its licensing policy. The compulsions to efficiency or to increase in investment are removed in such a system. It is necessary, therefore, that the Government devises measures requiring industry to make a certain minimum level of investment during the Plan period. The present system of laying down targets for industrial growth and

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letting such targets translate themselves into investment decisions is inefficient and works only where the incentive to invest is high (as during the period 1958-1963), even so while the investment rate was high, the investment taking place in industries like cement (which were subject to price control) was much lower, and the Plan targets were not fulfilled.

The present system in effect amounts to planning from the top. Very often such planning is not related to the requirements of industry or to the state of demand for the products (even when such demand was formed in the Government sector itself). This happened, for example, where industry invested according to Plan targets (as in the case of railway wagons or cast iron spun pipes), but the Government did not come forward to buy their output.

For the Fifth Plan it is suggested that the Government lay down only broad targets in key sectors for example, iron and steel, aluminium, power and so on. It should announce these targets early and, in the light of these targets, require industrial units having, say, an investment in gross fixed assets of Rs 1 crore and more to present an investment programme over the next five years. The objective should be that investment itself should emanate from industry rather than be imposed from above by the Planning Commission. Under such a system the role of the Planning Commission would be to reconcile the investment programmes of different industrial units so that they fall in line with the Government policy. Such a policy can also be used to achieve social objectives which the Government has in view. For example, the Government might provide that the rate of investment allowed to non-large houses would be greater than that allowed to large houses, or that the incentives and assistance provided to non-large houses would be more liberal than those provided to large houses. A policy of this kind would ensure that investment would continue to be made in industry and that the whole of industry participates in such a process. At the same time, incentive measures which are prerogative of the Govern-

ment can be regulated to meet its social policy objectives such as reducing concentration of economic power.

In framing incentive measures, the Government must take into account the relative availability of factors in India. India is a labour surplus country, and the objective of Government policy should be to promote increasing use of labour. Measures like development rebate, which were related to the amount of investment made, have tended to favour the use of capital rather than that of labour. In a country where the Government is trying to bring about a structural change by increasing investment (in relation to consumption), it is necessary that incentives are given for saving and investment. At the same time, such incentives should vary with the use of labour rather than with the use of capital. For example, an incentive can be provided by which a fixed tax rebate will be given in respect of each additional unit of labour employed rather than for additional investment made. Thus, while making development rebate available on all investment, its quantum should be related to the amount of additional employment generated by such investment rather than to the amount of investment as at present.

Thirdly, it is necessary that the Government takes serious measures to improve the performance of public sector units. Such measures lie essentially in the area of management, and it is desirable that the Government encourages professional management in public sector units rather than let civil servants have a free ride at the cost of public sector units. This also requires that departmental meddling in the operation of plants and through directors should be curbed, leaving full autonomy to plant management in day-to-day operations.

Finally, it is desirable that the Government's import policy is clearly integrated with its production policy. This needs to be done in two areas. Firstly, when a licence is given for setting up an enterprise, it is desirable that the latter is assured of the imported inputs required to operate

at full capacity for a given period, say, five years. This would lead to a certain degree of responsibility in the issue of industrial licences. Secondly, the Government should automatically ensure that, about a year before a unit goes into production, imports of the product are cut to the required extent without causing any damage to current production. This is necessary mainly because there generally exist adequate supplies, both at the inventory stage and under shipment and at the import licence stage, of imported goods. Industry has stagnated in India during the past seven years. This is not a sign that industry has reached maturity, rather, it is an index of the low level of investment taking place in the economy. The Fifth Plan needs to lay down a clear policy base for the next phase of industrial growth in the country.

CHANGES IN CORPORATE ORGANISATION

By Raj K. Nigam

As in the social, economic and political fields, dramatic and phenomenal changes have taken place in the corporate organisation in our country since 1947. The corporate sector, which remained static in its form and functions for almost a hundred years since 1850 when the seeds of the corporate form of business organisation were sown, has undergone sweeping changes during the last 25 years in all its aspects and facets of working. It is no more a sphere of activity controlled and dominated by private entrepreneurs; nor are they any more in a position to practise their ownership and managerial absolutism. Within the corporate sector today there are State corporate giants, bringing within their control increasing and diverse industrial activities and thereby diminishing the scope for the growth of private corporate entities. Similarly, there are numerous checks and controls imposed by the Government in regard to the financial and functional management of companies by private promoters of companies, who before Independence, enjoyed fabulous gains of managerial papacy and power. At the end of a quarter century since 1947, it can be said that the corporate sector has come out of the throes of a revolutionary transformation and its managements have been given a new code to work with. In this article it is proposed to discuss how the organisational transformation has taken place and how the new management code has been evolved. It is also proposed to bring to the fore the

unsavoury features of the corporate sector which require our attention so as to give the country a clean corporate sector whose working society can repose its full faith and confidence

The real credit for setting into motion the process of transformation of the corporate sector and of initiation of a new management behaviour goes to the Bhabha Committee which was set up in 1950 under the chairmanship of Mr C H Bhabha to suggest ways of reforming the corporate sector. The Committee, in its comprehensive report *inter alia* went into such live and critical issues as the powers of the management *vis-a-vis* shareholders, the safeguards required against abuse of such company practices as the interlocking of directorships, voting control by majority interests in company ownership and management etc which may be prejudicial to the public interest and suggested a formidable array of measures for promoting efficient and economical management of companies. The Committee's recommendations were in many respects radical and led to the breakaway of company legislation in our country from its century-old moorings and tie-up with the British Company Law. The Companies Act, which had in the past been in our country largely a non-interventionist measure requiring mere compliance with certain formalities by companies was lifted from the morass of perspectivelessness and given the form of positive regulatory measures to achieve the objectives enshrined in the Directive Principles of the Constitution. The recommendations of the Bhabha Committee led to a complete overhaul of the old Companies Act in 1956. The new Act has since been amended on about ten occasions and some of the amendments to the main Act have brought about quite a few fundamental changes, as, for instance, the abolition of the managing agency system which dominated the corporate sector for a century and quarter. Also, the powers and benefits of management have been drastically curtailed and a greater degree of disclosure in the annual accounts of companies has been provided for.

One aspect of the transformation relates to the structure of the corporate sector. Immediately following Independence, there were about 22,700 companies having a paid-up capital of Rs. 570 crores. Of these, roughly over 12,500 companies having a paid-up capital of approximately Rs. 450 crores were public companies and the remaining 10,200 companies with a paid-up capital of Rs. 130 crores were private companies. As against these, the total number of companies at work at the end of 1970-71 (which is the latest year for which information is officially available) increased to around 30,400 and their total paid-up capital to Rs. 4,300 crores. It is estimated that the total number of companies and their total paid-up capital at the end of 1971-72 would be around 32,000 and Rs. 4,500 crores respectively. The break-up of companies as between the public and private companies at the end of 1970-71 is 6,500 and 24,000 and the paid-up capital Rs. 1,910 crores and Rs. 2,390 crores respectively.

The corporate population at the time of Independence contained a very large number of moribund companies and if due adjustment is made for these defunct entities, the corporate population has doubled in number and the capital investment in the corporate sector has increased six times. At the time of Independence, there was no separate category of Government companies in the statutory sense. The majority stake of the Government, mainly that of the State Governments, in capital was in about a dozen companies and it amounted to around 1 per cent of the total paid-up capital of all companies. As against this, in 1970-71 there were 314 government companies accounting for a total paid-up capital of Rs. 2,065 crores which worked out to 48 per cent of the paid-up capital of the entire corporate sector. This shows the emergence of State enterprises as a dominant force in the corporate sector and the credit for this is to be wholly attributed to the Central Government which today owns at least 23 companies which have a paid-up capital of Rs. 10 crores or more each. The total paid-up capital of these companies in 1970-71 added up to Rs. 1,875 crores and total investment therein to Rs. 3,635 crores.

Another structural change in the corporate sector in the post-Independence period has been that corporate activity, as reflected by the location of the registered offices of the companies, is more widespread today than it was in 1947-48 when the eastern region (mainly West Bengal) and the western region (mainly the erstwhile State of Bombay) accounted for over 70 per cent of the corporate activity. The inter-regional distribution of new companies in the post-Independence period has been 30 per cent, 25 per cent, 22 per cent and 23 per cent in the eastern, western, northern and southern regions respectively. The dispersal of corporate activity today is more pronounced from the investment angle than in terms of the number of companies and in this process of change the Central Government has played a big role. Yet another new feature of the corporate sector is the emergence of giant size companies in a big way. Not only their number has increased but also their average size has gone up. The phenomenon of gigantism has not only been confined to the formation of new big-sized companies but also embraced the old companies which developed enormous capital fat. So far as the private sector is concerned, a contributory factor to the growth of giant size companies has been the restrictions imposed on the managing agents, managing directors etc. to ensure that they managed a smaller number of companies than before.

There are now two other powerful delimiting forces at work that are likely to check giant floatations by private entrepreneurs. One, the Government is making a big thrust in many industrial fields in order to bring the public sector to a position of dominance and two, the administration of the Monopolies and Restrictive Trade Practices Act, 1969, offers checks on diversification by the group companies. In floatation of new companies the share of the promoter company together with its inter-connected companies will be restricted to 40 per cent in the equity base of the new companies. A third big structural change that has taken place is that whereas in the early years of the post-Independence period, 54 per cent of the paid up capital invest-

ment in the corporate sector was under the control of the managing agencies which had a paid-up capital of about Rs. 75 crores only as against the paid-up capital of their managed companies amounting to Rs. 465 crores, today the control of managing agencies is totally non-existent. The process of disappearance of managing agencies from the corporate scene had started in 1957 as the Companies Act, 1956, brought the renewal of managing agency contracts under Government scrutiny, laid down a ceiling on the number of companies that a managing agency could look after and imposed many restrictions including drastic reduction in their managerial remuneration and other monetary benefits making the system less attractive and onerous. The process, however, gathered momentum after the acceptance of the recommendations of the Patel Committee Report in 1966 and finally the axe fell on the system in 1969 when the system was abolished by an amendment to the Companies Act.

Coming to the qualitative changes in the management of corporate bodies, it would be appropriate to recall the evils of corporate management in the pre-Independence days which necessitated sweeping changes in the Statute. The rampant abuses apart, which required firm remedial measures, the socio-economic perspective of the people and the Government also underwent a change which required a new framework of regulations to govern the companies. As the first statutory report on the administration of the Companies Act put it, "the compelling needs of a planned economy and the underlying postulates and motivations of the pattern of society, which the country had accepted as the goal of its economic and social policy, called for a new definition of public interest in relation to the working of joint stock companies and also for the integration of the activities of the corporate sector with the basic values implicit in this policy in more positive terms than had been hitherto attempted." What was meant by this, in the most generalised terms, is the democratisation of management of companies by making the management more responsible

to the interests of the directly concerned parties and the safeguarding of the funds invested in companies which came from the savings of a large number of members of the society

Some abuses which were widespread in the late forties and early fifties required to be remedied. It had become a widespread practice to make fraudulent floatations wherein the public lost substantial amounts of money. The company prospectuses were brought out in a *sketchy* form and these concealed rather than revealed the facts about this company. The unscrupulous company promoters made fraudulent payment of underwriting commission etc. to themselves by clever manipulation of transactions and made allotment of shares even to non-existent persons. Company managements indulged in the practice of investing the funds of public companies for purchasing the shares of other companies with large reserves in liquid form with a view to obtaining control over them. Very often funds of companies used to be advanced as loans at relatively low rates of interest and without adequate security to the closely held private companies with weak and vulnerable financial position and to the directors. Instances were also noticed where transfer of assets of public companies was made to closely held private companies which were then taken into liquidation and the liquidators in turn favoured the management. It had also been observed that improper transfer of assets of one company to another was done with the purpose of benefiting the management at the expense of the investors. There were numerous instances of appointment of dummy concerns as selling agents at high rates of remuneration for long durations and subsequently their contracts were terminated before the expiry period with a view to paying them large sums by way of compensation which accrued eventually to the persons in control of the management of companies. There was a systematic exploitation of companies and their shareholders for their own benefit by managing agents who enjoyed long tenures of office, say, 20 years and wielded wide powers

as a result of which many irregularities were done in the internal working of companies.

Trafficking in management rights on a large scale also took place regardless of the financial reputation of purchasers. The employees of the managing agents holding small positions in their establishments used to be appointed to the Boards. The appointment of superannuated persons were also made on the Boards and the interlocking of directorships was so arranged that the hold on companies was kept tight. In short, with some exceptions, the main concern of the company management was to skim off the best gains from the companies for themselves and the perpetuation of their control over them. The checking of the foregoing abuses and blemishes in the corporate organisation has in the post-Independence period taken two broad forms. One, it is exercised through the assumption of wide powers by the Government. Over a hundred provisions in the Companies Act confer powers on the Government to intervene in the affairs of the companies in certain situation and to approve or disapprove decisions of the Board or even those of the general body of the shareholders. The Government has taken powers for carrying out special audit, cost audit, investigations and inspections into the affairs of the companies. The Government has got powers to appoint directors on the boards of companies where oppression of minority interests and mismanagement are established. The Government has also the powers to direct the reluctant company managements to register the transfer of shares, after giving due hearing to the concerned parties

It has got the power to approve or disapprove fresh appointments or reappointments of managing directors, directors (and before 1969 those of the managing agents) after a thorough scrutiny. It has also got the power to lay down the terms of appointment as considered fit by it for the company and its shareholders after taking into account the past performance and suitability of the personnel to be appointed and the resource position of the company. It has got the power to approve or disapprove

inter-company investments or loans if they exceed certain limits. Apart from the powers available to the Government under the Companies Act, the Monopolies and Restrictive Trade Practices Act of 1969 gives additional powers to Government to approve or disapprove the proposals for expansion of existing lines of activity or for starting new ones by large business houses and dominant companies after taking into account the considerations of concentration of economic power, public interest etc.

The other aspect of control is that the company promoters and managements are required to make certain essential and vital disclosures under about 50 provisions of the Act. For instance, the scope of prospectus has been considerably widened. In respect of a number of matters, the company managements have to pass special resolution and to file the same with the Government. As for example, a special resolution under Section 314 has to be passed in regard to the appointment of relatives of directors to high offices carrying high salaries in the company. The scrutiny of this resolution in the Government exercises a wholesome check on the evil of nepotism. A very detailed disclosure of the financial affairs of the companies is required to be made in the profit and loss account and balanced sheet of the company in accordance with the enumeration of details given in Schedule VI to the Act. The scope of this disclosure has been further widened by amendments to the substantive schedule in recent years. The company managements have to file over 100 documents and returns, in respect of public companies particularly, at different intervals. These returns and documents, apart from scrutiny by the Government, are also open to inspection by the public. This has a wholesome impact on the company managements.

Apart from the foregoing requirements as regards disclosures and submission of returns, there are a number of ground rules either laid down in the Act or evolved in the course of administration of the Act by Government which are to be followed by company managements. They have to be content with lower ceilings by the Government on

consideration of merits of individual companies. As against the long tenures of office enjoyed by them in the past, the tenures are now restricted to smaller durations, say, 3 to 5 years. They are not to claim monetary benefits like the sole selling and buying commissions directly or indirectly by appointing themselves or their associates as agents. Even after relinquishing office, they will have to wait for a couple of years before they could become eligible for appointment as agents. They have to deny themselves guarantee commission earned on loans. Having regard to the fact that in the great majority of cases the guarantees are never to be invoked and loans and advances granted by the lending institutions are usually fully secured by pledges and mortgages and that the guaranteeing of loans is generally regarded as part of the comprehensive services to be rendered by managements, the curb imposed on this sort of payment is justified.

The company managements are not to increase the number of directors of a company which would make the board out of proportion to the size of the unit and the nature of its business. The number of directors has to be related to responsibilities and duties cast upon the board. The directors are not to expect high sitting fees. Ordinarily there should not be more than one managing director in a company and in exceptional cases the number can be increased on merits. The spirit of this restriction is not to be violated by appointment of technical directors which would be scrutinised by the Government. The number of directorships that a person can hold has also been limited to a smaller number, say 20. The boards of directors can exercise such powers as are outlined in Section 292 of the Act and have to take note of the restrictions imposed on their powers in Section 293. The directors have to make a complete disclosure of their direct or indirect contract or arrangement entered into or proposed to be entered into by or on behalf of the company. A register of contracts, companies and firms in which directors are interested is also to be maintained by the company in pursuance of

Section 301 of the Act The directors have to make a disclosure of their shareholdings and a register of their shareholdings is also to be maintained by the company

The sum total of the changes that have so far taken place in corporate organisation particularly in its management is that the working of corporate bodies is no more shrouded in mystery in so far as the shareholders are better informed now than before, the company managements have now to function democratically and responsibly since they have to take the approval of the shareholders in many matters and to secure Government approval for a number of things The cost of management has also become more economical and the scope for manipulation of transactions and accounts has been reduced As compared with the situation that existed for a century before Independence, today the performance of corporate management is much better

But still there are many a defect which require effective treatment For instance the erstwhile managing agents, secretaries, and treasurers have taken up appointments as consultants advisers secretaries etc and are thus imposing an undue burden on the finances of the erstwhile managed companies By clever devices, they are still able to siphon off the funds of the companies in the form of buying and selling agencies The management by a person outside the Board continues to be still prevalent Many of the important decisions are taken much before the meeting of a Board at which the directors are merely rubber stamps The representation of labour on the management is still a far cry Professional managers are yet to take their due place on the Boards The company managements have yet to eschew considerations of 'self interest' and bring out a just equilibrium of the interests of management, shareholders, employees and society

The companies have to cease to be symbols of an acquisition society The business which begins with public permission in the sense that the Public Authority, that is,

Government, grants permission for it, runs with public support and grows with public co-operation, should accept the public as the final arbiter of what the company management should have and what they should not. Symptoms of social discontent in regard to the running of corporate enterprises by big business houses are too apparent to be ignored. In fact, these symptoms prompted the passing of the Monopolies and Restrictive Trade Practices Act, 1969.

It is time that socialisation of the limited liability company was thought of as that would go a long way towards transforming an economy which is still basically capitalist into one which would be basically socialist, as is envisaged in the Directive Principles of the Constitution and is emphasised by the Government in its policy pronouncements from time to time.

GROWTH OF THE PUBLIC SECTOR

By A. N. Banerji

Perhaps it is a little difficult to trace the history of development of public sector in India in an article such as this and also to do justice to the theme. Public sector actually includes all activities of the State in the field of production, distribution and provision of services. If we accept this definition in India, public sector first started in the last century when Government took up the responsibility for running the postal and the telegraphic services. This certainly was not done at that time as a social policy, but was perhaps done because the Government was the only agency that could undertake this particular service of distribution of mail throughout the country.

The railways, as one will remember, first came to this country as a private sector venture. Gradually the state was drawn into and supplemented the private sector activities in this sphere with railroads belonging to the state, but only in such areas where private entrepreneurs were unwilling to put up rail links, as in the case of the eastern part of the erstwhile Bengal Presidency. Broadcasting also started in this country in the private sector but was soon taken over by the Government, perhaps, because the private entrepreneurs could not make a go of broadcasting as a commercial venture. Railways in the meantime started getting "nationalised", as original contracts with private entrepreneurs, which laid down specific periods for which they were allowed to run the railway services.

came to an end. Thus, by the time the Second World War began, virtually the entire railway system of the country (excepting one or two railway companies like the B.N. Railway and the M.S.M. Railway), the post and telegraph services and the broadcasting systems were in the state sector. During this period, public sector enterprises which were being run by the Government were of such a nature that they mostly provided services to the community. Government had not yet entered the field of production (excepting for defence purposes) or distribution.

When the Second World War ended, the then Government of the country felt that for post-war reconstruction it was necessary for the state to go in into certain new fields of industrial and economic activities. As such, a committee was appointed by the Government headed by Mr. Padamjee Sinwala to go into the question whether Government should invest in the setting up of a steel plant. For the purpose of taming the Damodār river, it was decided to establish an autonomous corporation which would be responsible not merely for the building of dams and canals but also for generation of power and opening of navigation channels in the lower Damodar valley. It was also decided in principle that Government should set up a fertiliser factory—this was the first move by the state in this country to enter into the field of production.

Then came independence on August 15, 1947; with it also came the major problem of industrialising the country at a very rapid speed. It was imperative that the deficits of a hundred years would have to be made up within a very short time. How best it could be done became a really serious problem. In India capital has always been shy and the tendency has always been for people to invest their capital in real estate; the peculiar land systems that prevailed in most of the provinces encouraged such investment. Whatever little surplus was available for investment in industries naturally went to such types of consumer industries that would yield substantial dividends quickly and there had been little urge on the part of the investors in

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the country to invest in basic and heavy industries—industries that would have long gestation periods and would, even when they start yielding results, give much less return on capital than consumer industries. On the other hand, massive investments would be needed to industrialise the country rapidly and such industrialisation would have to be primarily in basic industries. Unless a proper infrastructure to the economy could be built, it would not be worthwhile thinking in terms of establishing fresh capacities to produce consumer goods to any appreciable extent. It was in the circumstances felt that the State was the only agency that could make such massive investments and ensure a proper, balanced, as well as quick growth of the economy of the country as a whole.

There was another very important factor which played a major role in deciding the policy to be adopted in industrialising the country. The country had accepted socialism as its goal and rightly so. This meant that unlike many countries which had had their industrial revolution either in the last century or earlier in this century, the benefits of industrialisation in this country would be shared by the community at large and not by a few individuals. This also meant that there should be no concentration of wealth or of economic power in a few hands. In order to ensure that there was no concentration of wealth or economic power and that the fruits of industrialisation were shared by the community at large, it was necessary that the means of production and distribution were kept as much as possible with the state. Apart from the matter of massive investment, this was another important consideration which led the state to adopt a philosophy according to which all industries of basic and strategic importance, or in the nature of public utility service or industries which were essential and required investment on a scale which only the state, because of the difficulty of mobilising the necessary resources, could provide, would have to be in the public sector. This is what has been laid down in the Industrial Policy Resolutions of 1948 and of 1956.

The Industrial Policy Resolutions classified industries into three categories having regard to the part the state would play in respect of them. The first category included industries the future development of which would be the sole responsibility of the state. In this category fell arms and ammunition, atomic energy, heavy engineering, heavy electricals, mineral oil, mining and processing of copper, lead, zinc, etc. air transport, rail transport, shipbuilding, generation and distribution of electricity etc. The second category was composed of such industries in which the State would progressively extend its activity and would thus take the initiative in due course. Aluminium and other non-ferrous metals, machine tools, drugs, plastics, dyestuffs, antibiotics, fertilisers, etc. came within this category. All other industries were to be in the third category, and this, according to the two Industrial Policy Resolutions mentioned above were left primarily to provide initiative—of course that did not mean that Government would not enter this field at any future stage.

The objectives of the public sector have been summarised by the Prime Minister in her speech in 1966 to the heads of public undertakings at a seminar on the role of the public sector. At that seminar she said, "We advocate the public sector for three reasons: to promote critical development in terms of social gains or strategic value, rather than primarily on considerations of profits and to provide commercial surpluses with which to finance further economic development." On another occasion, the Prime Minister speaking on the same subject had observed: "The public sector occupies a pivotal role in our economic strategy. From the beginning it has been recognised that the public sector would necessarily have to venture into difficult and capital intensive fields of basic industry which the private sector had shunned for long. This has been done boldly and sometimes in the teeth of opposition. I think we can say with justifiable pride that the sinews of our strength, though it may be modest by the standards of the Western countries, lie largely in our public enterprises".

Coming to the actual development of public sector since independence, one can perhaps study such development by taking each of the Plan period separately. The first Five Year Plan period, i.e., the period between the year 1951 and the year 1956 saw the establishment of a certain number of new undertakings in the public sector. This was basically a period when agriculture and allied fields like irrigation received the maximum attention of the planners. Also, public utility services were given a very high priority during this period. Industrial undertakings were more or less in the planning and formulative stages and only a beginning was made in setting up manufacturing industries in the public sector during the first Plan period. By the end of this period, the number of units set up or in the process of being set up came to 21, with an investment of Rs 81 crores. Some of these units were old established units like collieries belonging to the railways which were separated out into specific public sector entities. Some of the enterprises which were started during this period were the Hindustan Cables, the Hindustan Machine Tools, Bharat Electronics, National Coal Development Corporation, Neyveli Lignite Corporation, Oil and Natural Gas Commission, Air-India, Indian Airlines, etc. The last two were really products of nationalisation—a large number of private sector airlines which sprang up immediately after the war were nationalised and reorganised into two corporations, one for running services to foreign countries and the other for internal air travel.

An analysis of the types of industries that were selected to be set up during this period would tend to show that there was an emphasis on the development of power and fuel. This was natural as power and fuel were the basic necessities for large-scale industrialisation. The accent on development of steel and heavy engineering which would need very heavy investment and for which certain infrastructure for development of coal, iron ore, etc were necessary had to wait for subsequent plans. Also, during this period along with manufacturing activities some atten-

tion was directed to the establishment of agencies in the public sector of a developmental character. National Small Industries Corporation, National Research and Development Corporation and National Industrial Development Corporation were set up at this time. National Small Industries Corporation was set up with the objective of providing guidance and financial assistance to small entrepreneurs desiring to establish small-scale units for producing both industrial and consumer goods. It was realised that for a country as vast as India, where capital and managerial skills were scarce, and where industrial base was comparably low, provision of opportunities for employment over widespread areas depended on encouraging industrial activities in the small scale sector, and it was felt that an organisation like the National Small Industries Corporation would provide the necessary impetus for the setting up of such industrial units in the small scale sector through provision of finances and through technical and managerial guidance. The National Research and Development Corporation's primary objective was to translate into the industrial field the gains from the industrial researches being carried out in the national research laboratories. The National Industrial Development Corporation was organised for providing consultancy services and for assessing feasibilities of projects and development of expertise, particularly in the public sector.

It was only during the second Five Year Plan, i.e., between the years 1956 and 1961, that the public sector entered into real new fields of activities; it was during this period that the foundation of public sector in heavy industries was laid. A number of public enterprises in steel, engineering and chemical sectors were set up. The state also began to take interest in canalising certain areas of export and import trade through a newly-established State Trading Corporation. The three units of Hindustan Steel Ltd. were built and commissioned between 1956 and 1959; the public sector plant of Heavy Engineering Corporation, Ranchi and the Heavy Electricals complex comprising 4

units were conceived during these five years, new fertiliser units were also planned and executed during this time, a beginning was made in starting petroleum refineries in the public sector. Apart from establishing new manufacturing units in the public sector and canalising a part of the export and import trade through public sector agencies, a major breakthrough was achieved when the Shipping Corporation of India was set up in 1961. While rail and air transport was by this time fully nationalised, sea transport was left to be developed entirely in the private sector. But it was felt that an area such vital and important to the national economy as this could not be left entirely to private entrepreneurs for its proper growth.

One can thus say that the real momentum in the establishment of public sector in this country came during the second five-year plan period, i.e. between the year 1956 and the year 1961. By this time, Government's policies had also become clearer and were unambiguously laid down in the Industrial Policy Statement of 1956. Industries in which the Government would have to make massive investments were also in clear focus, and action to start such industries (as in the case of heavy engineering and the heavy electricals) were initiated during this period. At the end of the second five-year plan, the total investment by the Central Government in public sector rose to Rs 953 crores, spread over 48 units.

The third five-year plan period, which ended on March 31, 1966, saw more or less a repetition on a more massive scale of the second plan period activities. This period witnessed phenomenal growth in public sector industries, an investment of the order of Rs 1,500 crores was made during these five years, many of the units already established were expanded. Many new industries were planned during this period and execution of these projects was started, some of the units which were commissioned a little earlier started yielding results, in short tempo of activities increased considerably. One area which had been functioning in an ad hoc manner

the past was systematised during this period and was converted into public sector activity. This was procurement and distribution of foodgrains. The Food Corporation of India came into existence during the third five-year plan period and took over the procurement and distribution activities which were being carried out by the various state government departments as also by the Union Ministry of Agriculture since the Bengal famine of 1943. It was during this period that the State also entered into some consumer industries like bread-making. The total investment at the end of the third five-year plan came up to Rs. 2,415 crores and the number of units established by this time reached 74.

The process of expanding the existing public sector units, setting up new units in the public sector in areas where the state had already made investments earlier and entering into new fields of activities has been continuing ever since. Twenty-three more units have been added to the list of public enterprises, raising the total number of units functioning in the public sector to 97 by the end of the year 1970-71. The investment has correspondingly gone up to Rs. 4,682 crores. Non-ferrous metals have received a good deal of attention during this period, as also such consumer commodities as cement and paper. A corporation to look after textile units in the private sector which have been functioning in a haphazard manner was established. Agricultural sector was also taken care of by the establishment of such units as the State Farms Corporation and the National Seeds Corporation. For manufacturing petro-chemical products, a very large investment is being made through the Indian Petro-chemicals Corporation Ltd. which is having its factories at Baroda. In other words, during the period between 1966 and 1971, public sector activities have embraced many more diverse areas. A certain amount of consolidation has also taken place about which mention would be made at a later stage.

As I mentioned earlier, one of the main roles of the public sector is to provide an infrastructure to the national

economic growth This the public sector has been trying to do by providing equipment and machinery for various types of industries, by providing basic and industrial raw materials, by providing services in the field of transport and communication, by providing finance (through public sector financial institutions and banks) and by providing technical expertise through such organisations as the National Small Industries Corporation as well as through several public sector consultancy organisations that have come into existence, like the National Industrial Development Corporation, Engineers (India) Limited, the Central Engineering and Design Bureau of Hindustan Steel Ltd, the FEDO of FACT, etc Apart from providing infrastructure to the economy of the country, public sector has also assumed a leadership role in many fields of industrial activities This is as it should be and as time goes by the leadership role will be even more pronounced

Another area where the public sector has served a very useful purpose is in helping to remove regional imbalances in economic development Government took a deliberate policy decision of locating public enterprises wherever possible, in backward areas and greenfield sites While this perhaps has put up initial capital costs of some of the public sector undertakings, the social impact of such a move cannot be overestimated Two of the three Hindustan Steel plants were put up in very backward Adivasi areas and over a period of 10 to 12 years the two steel plants have been able to generate economic activities of sizable proportions in these areas which have perhaps become industrially the most advanced areas in their respective States Most of the mining projects are located in backward areas (this is of course natural as the areas have remained backward for so long because, for agricultural purposes, such areas with large mineral deposits could be of little value) and the impact of development of such mines is not inconsequential from the regional development point of view Also, where a large number of public sector enterprises have been put up in one place as in the case of Hyderabad, Bangalore,

Udyogmandal etc. such siting has acted as a catalyst for small entrepreneurs to set up industries in the ancillary sector in such areas. It is the Government's policy to encourage activities of the small-scale sector as an adjunct to the operations of large public undertakings. This is bound to result in large-scale gains to the community in the diffusing of managerial skills and entrepreneurial ability. Thus, the public sector is playing a very useful role in the multiplier effect it is producing in the process of industrialisation of the country.

Another feature about which some mention can also be made is the employment opportunities that the public sector has created and the technological skills that it has developed. The public sector undertakings of the Government of India employ over 6.50 lakhs of people with an annual wage bill of Rs. 357 crores. The average emoluments per employee comes to nearly Rs. 5,500. The public sector undertakings, by and large, provide amenities which very few employers in this country have provided in the past. This means heavy subsidy from the operating budgets of the undertakings in most cases, but this is a social cost which most public sector undertakings have accepted as a part of their responsibility. As a matter of fact, the total subsidy being paid by public sector undertakings for provision of amenities and facilities, including medical benefits, provision of education, etc. is of the order of Rs. 35 crores.

Qualitatively, public enterprises have introduced in the country many new technological skills which have hitherto been absent. This is particularly true in the case of the engineering and ship-building industries, in the construction and erection of complex engineering and metallurgical plants and in the fertiliser industry. Such technological skills are not limited to engineers belonging to the upper echelons; the country now possesses a very large number of skilled technicians and workers who can, without any outside help, manufacture sophisticated electrical equipment, machine tools etc, can undertake

erection of complicated steel and other similar plants and can look after the maintenance of delicate chemical or electronic equipment. This qualitative gain is often lost sight of by critics of public sector, but the quantum of gain that we have had over a very limited period of 15 to 20 years is something which I personally consider remarkable.

Acquisition of managerial skills, unfortunately, has been comparatively slow. Managerial skills have always been rather scarce in India because of the peculiar conditions prevailing in the pre-independence days. The preponderance of family business in our industrial field also stood in the way of development of professional management in the country. In the earlier years after independence, the State was perhaps a little too busy with planning and establishment of public sector undertakings and perhaps not enough attention was paid to the development of a cadre of professional managers to run the public enterprises. Over the last few years, however, action has been initiated to remedy the situation and it can be said that within the next few years it will be possible to develop a hard core of professional managers in the public enterprises who would compare favourably with people in similar positions in more advanced countries in the world. Similarly, systems of management and management structures, which in the initial stages of the development of public sector were very much on an *ad hoc* basis, are now being streamlined and a pattern is being evolved which will be suitable to the genius of the public sector. Here also, one can safely predict that within the next few years the pattern would emerge very much clearer and definite working systems that would ensure smooth running of the public enterprises will be fully evolved.

There are many critics of the public sector who do not find anything good in it, there are many pessimists who predict a very bleak future for the public enterprises. However, every right-thinking person would have to come to the conclusion that public sector is a way of life with

us and is perhaps one of our most important vehicles that will take us to our ultimate goal of industrialisation and socialism. It should be the object of every right-thinking person to try to remedy the defects that still prevail in the public sector so that our vehicle is an efficient and smooth running one; otherwise our journey to our goal would only be more prolonged and more agonising.

DEVELOPMENT OF SMALL INDUSTRIES IN FREE INDIA

By A R Bhat

Since the attainment of independence, India has made tremendous progress in various fields of economic activity. One of the outstanding achievements is the emergence of the mechanised small-scale industries sector. After undergoing terminological changes, a "small industry" now stands defined as an industrial unit with a capital investment of not more than Rs 75 lakhs in plant and machinery only, irrespective of the number of persons employed. An ancillary small unit can have such capital investment of not more than Rs 10 lakhs. While registration of each and every unit in the small-scale industries sector is not obligatory, a unit which requires any kind of assistance from Government agencies has to register itself with the Director of Industries of the State in which it is situated. While the number of such registered units was only 36,109 in 1961, it grew to 2,81,781 at the end of December 1971, the number of units registered in 1971 alone being 42,293. In addition, there is at least an equal number of units which are unregistered, many of them being tiny. The small-scale industries sector is a free sector where no permission is required to start a unit.

Preceding the Independence era, during the freedom movement, there was emphasis on the development of khadi and village industries as they provided some gainful

employment to the unemployed in rural areas and helped to make villages self-reliant, which was the goal of Gandhian planning. A beginning towards the organisation of a modern, mechanised, small sector of industries was made during the Second World War. It became extremely difficult to have supplies of consumer goods from abroad due to ocean warfare and the utmost need to conserve foreign exchange. Further, the Allied Powers began making purchases of defence stores which could be available in India. The Government of India announced that those industries which would be developed to meet the civilian and defence needs would not be left high and dry after the war. A number of entrepreneurs not only came forward to manufacture goods with indigenous raw materials and locally developed technical know-how but also fabricated the machines needed by them. The Government appointed the Interim Tariff Board and, on its recommendations, granted tariff protection to the deserving ones. But the circumstances changed. India had built up huge sterling balances during the war and, in consequence, the imports were liberalised, which killed many a wartime small industry.

India attained Independence in 1947. The national Government at the Centre began taking steps for the rapid industrialisation of the country. But it inherited the ideology of the freedom movement. The National Planning Board, under the Chairmanship of Mr. K. C. Niyogi, and the Industrial Policy Resolution of 1948 mentioned "cottage and small industries as being particularly suited for better utilisation of local resources and the achievement of local self-sufficiency in respect of certain types of essential consumer goods". There was no clear concept of mechanised small-scale industries and no emphasis on their development. The development of industries, particularly small-scale industries, is the responsibility of the State Governments. In pursuance of the content of the Industrial Policy Resolution of 1948 they undertook some programmes for the growth of the village and small industries. The First Five-Year Plan also did not go beyond this Resolution with

to consider measures for the growth of small-scale industries on a national scale and advise Government on the measures to be taken in that behalf. Simultaneously, to carry on the policies in that behalf and co-ordinate the activities and programmes undertaken by different States, a central organisation under the Development Commissioner for Small Scale Industries was set up. This organisation commenced providing technical and managerial consultancy services for which a network of 16 Small Industries Service Institutes, eight branch Institutes and 55 extension centres has come to be established.

In 1955 the Government of India established the National Small Industries Corporation, a joint stock company which has been aiding the small-scale industries to participate in the Central Government's purchase programme and supplying imported and indigenous machines under a system of hire-purchase. On the recommendation of the Small Industries Service Institutes, it certifies and registers units as eligible for tendering to the Directorate-General of Supplies and Disposals (DGS&D) for supplying stores to be purchased by the Government. So far the Corporation has certified more than 20,000 units of which about 3,000 are active participants in the Government purchase programme. From the date of commencement of its activities in the field in 1957 the NSIC-registered units secured contracts for the supply of Rs. 258.57 crores worth of goods to DGS&D, Rs. 23.50 crores to the Railways and Rs. 1.54 crores to the Post and Telegraphs Department, the respective figures for 1971-72 being DGS&D, Rs. 54.39 crores; Railways (up to January, 1972 only) Rs. 2.73 crores, and Post and Telegraphs Department, Rs. 25 lakhs. While it is open for eligible small-scale units to compete with large-scale units in tendering to the Government agencies, 167 items have been reserved for them. The NSIC has been supplying imported and indigenous machines to small industries on easy terms under a system of hire-purchase.

It supplied, since the commencement of the programme in 1957, 24 674 machines of a total value of Rs 56 45 crores, which has substantially helped introduction of modernisation and production of quality items by small industries

Yet another step which the Government took to assist entrepreneurs was to give them built-up sheds or to help them to build their own sheds For this purpose, assistance was given to set up industrial estates The principal objective of the industrial estates is "to provide factory accommodation to small industries at suitable sites with facilities of water, electricity, steam, transport, banks, post offices, canteens, watch and ward, etc and thereby create the necessary atmosphere for advancement of industries" The Government, municipal authorities, co-operative societies and joint stock companies, even private proprietors, have come forward to build such sheds To the sponsored estates, State Governments, State Financial Corporations and the Life Insurance Corporation of India have made funds available In all, at the end of March 1971, the total number of sanctioned industrial estates was 572, and 10,317 industrial sheds had been constructed It is estimated that the industrial units in these sheds manufactured goods worth Rs 154 crores per annum and provided employment to about 1 06 lakh persons

The Industrial Policy Resolution of 1956 duly emphasised the importance of small scale industries in the industrial set-up of the country It stated, "the Government of India would stress the role of cottage and village and small-scale industries in the development of the national economy In relation to some of the problems that need urgent solutions, they offer some distinct advantages They provide immediate large-scale employment, they offer a method of ensuring a more equitable distribution of national income and they facilitate an effective mobilisation of resources of capital and skill which might otherwise remain unutilised Some of the problems which unplanned urbanisation tends to create will be avoided by the establishment of small centres of industrial production all over the country" The

Resolution also referred to the Government policy of supporting these industries by restricting the volume of production in the large sector, by differential taxation or by direct subsidies. It stated that the aim of Government policy was to ensure that the decentralised sector attained sufficient vitality to be self-supporting, improved its competitive strength, modernised its technique of production but its pace of production being so regulated that it did not cause, as far as possible, technological unemployment. It alluded to the handicaps of small industries such as lack of technical and financial assistance, suitable accommodation and availability of cheap power. Government commenced taking steps to remove these hurdles. Thus began the countrywide movement of small industries development.

Although the Central Government had taken a number of steps to help the growth of small industries, the Central Small Scale Industries Board soon felt that it was necessary to set up State Small Industries Corporations and recommended their establishment in 1958, the principal objects being (1) distribution of raw materials, (2) marketing of small industry products, (3) participation in Government Stores Purchase Programme, (4) supply of indigenous machines on hire-purchase basis, (5) construction and management of industrial estates, (6) participation in equity capital and (7) management of industrial units. Such corporations have been set up in most of the States. Their functioning pattern, however, changes from State to State. The first four objectives are, by and large, common to all of them.

During the second and third five year plans, the Government took various steps to aid the small industries movement. Experts from foreign countries, including Japan, visited the country. In 1962 the Government of India invited another Ford Foundation Team of experts which took stock of the progress made by small industries and evaluated it. It made further suggestions for improving the small industries development programme. With the aid of West Germany, the US and Japan the Government set up proto-

type production-cum-trading centres at New Delhi, Calcutta and Rajkot to impart training and design prototypes of machines. The Government also established the Small Industries Extension Training Institute (SIET) at Hyderabad to give training in management, methods of regional development, human relations in industry, extension and communication techniques for disseminating information and preparing prototype training courses. Through the Special Fund Assistance of United Nations Development Programme two projects—the Central Institute of Tool Designs at Hyderabad and the Institute of Designs for Electrical Measuring Instruments at Bombay—have been recently established.

In order to assess the reaction of small-scale industrialists to the various measures taken by Government to understand their expectations and aspirations and to create the spirit of self-help in them, the Government of India took initiative in promoting an independent central organisation of small industries' associations and small industrialists in the shape of the Federation of Associations of Small Industries of India with its head office in Delhi. It has today four regional offices in the northern, eastern, southern and western regions, voluntary affiliation of over 250 associations and direct membership of over 3,000 small units. To do all this, the Central and State Governments spent progressively larger amounts in the Plan periods as can be seen from the following figures (which include expenditure on Industrial Estates also)

First Plan (1951-56) Rs 5.2 crores, Second Plan (1956-61) Rs 56.00 crores, Third Plan (1961-66) 108.27 crores, Annual Plans (1966-69) Rs 46.93 crores, and Fourth Plan 1969-74 (provision) Rs 123.33 crores.

Besides the various positive measures by the Government, the import restrictions created a very favourable atmosphere for entrepreneurship to grow in different parts of the country. Small industrialists have made a significant contribution to import substitution. They select

products for manufacture which are imported and when successful, request for a ban on their entry. As a result, the small industry sector which mostly consisted of traditional industries in the early years of independence has emerged as a sector of small modern units using machinery and power producing thousands of articles, some of them very sophisticated. It feeds large-scale industries with components and auxiliary equipment. Numerous units have sprung up as ancillaries to large-scale units.

It is on record that small-scale industries account for almost the entire production of items like clinical thermometers, bifurcated rivets, paper pins and clips, measuring (cotton) tapes, mechanical toys, spindle inserts, glass ampoules, plaster board, woodwool, pencil sharpeners, hair clippers, chalk rayons, artists' colours, etc. Their contribution is over 50 per cent in items like electric irons, wire netting and wire mesh, rolling shutters, gun metal bushes, shoe tacks, picking sticks, barbed wire, polythene tubing, machine screws, upholstery, coil springs, hair pins, shoe eyelets, stapling machines, ball bearings, fountain pens, spectacle frames, pressure cookers, metal-clad switches etc. Small industries account for nearly 60 per cent of the total factory production in metal products except machinery. They are in the field of chemical industries producing some dyes, intermediates, paints and dyes, pesticides and plastics. They produce a variety of drugs and pharmaceuticals. They also produce such sophisticated articles as electronic devices, electrical measuring instruments, thermoplastics, precision scientific instruments, air filters, break-linings, gaskets, engine valves, oil seals, voltage regulators, emulsifiers, testing meters, oscillators, electrolytic condensers, tuning relays, thermostats, to mention a few.

Encouraged by the progress that many of the small industries have made in respect of quality and volume of production the Government has decided upon a policy of guaranteed field of production. Where it has been found that articles are technically and economically feasible for production on a small scale and the large size of operation

type production cum trading centres at New Delhi, Calcutta and Rajkot to impart training and design prototypes of machines. The Government also established the Small Industries Extension Training Institute (SIET) at Hyderabad to give training in management methods of regional development human relations in industry, extension and communication techniques for disseminating information and preparing prototype training courses. Through the Special Fund Assistance of United Nations Development Programme two projects—the Central Institute of Tool Designs at Hyderabad and the Institute of Designs for Electrical Measuring Instruments at Bombay—have been recently established.

In order to assess the reaction of small scale industrialists to the various measures taken by Government to understand their expectations and aspirations and to create the spirit of self help in them the Government of India took initiative in promoting an independent central organisation of small industries associations and small industrialists in the shape of the Federation of Associations of Small Industries of India with its head office in Delhi. It has today four regional offices in the northern eastern southern and western regions voluntary affiliation of over 250 associations and direct membership of over 3 000 small units. To do all this the Central and State Governments spent progressively larger amounts in the Plan periods as can be seen from the following figures (which include expenditure on Industrial Estates also)

First Plan (1951-56) Rs 5.2 crores Second Plan (1956-61) Rs 56.00 crores
Third Plan (1961-66) 108.27 crores
Annual Plans (1966-69) Rs 46.93 crores and Fourth Plan 1969-74 (provision) Rs 123.33 crores

Besides the various positive measures by the Government the import restrictions created a very favourable atmosphere for entrepreneurship to grow in different parts of the country. Small industrialists have made a significant contribution to import substitution. They select

safes and cabinets 93 per cent, bifocal lenses 81 per cent, buttons, plastic novelties etc. 71 per cent, woollen hosiery and knitwear, curry powder, pickles and jams 65 per cent, oil mill machinery, oil expellers, filter presses, etc. 62 per cent. In several other products, some small industrial units exported 40 to 50 per cent of their production.

Thus, on the eve of the completion of twenty-five years of independence, the achievements of modern small-scale industries sector look impressive and the strategy that has been adopted for their development has come to be considered an object lesson to other developing countries. When one looks at the handicaps from which they suffer, one cannot but feel that the progress can be tenfold and more if the same are removed. The most important handicap is the inadequate supply of raw materials. Until the Government announced some years back that small units in priority industries will receive their full requirements of imported raw materials, the entire sector was the residuary recipient of these items. However, among the priority industries, only a few have a substantial number of small units. A very large number of units are in the non-priority sector. They do not get more than 20 to 25 per cent of their requirements of imported raw materials.

In recent years the total amount of direct licences to small industries has been increasing but along with it, the number of units has also been growing. As a result small units with their rising production have to depend on larger volumes of open market purchases at high prices. In order to do some justice to small units, a high power committee under Mr. K. Balachandran, the then Additional Secretary, Ministry of Industrial Development drew lists of small industries according to their importance to which 100 per cent, 75 per cent, and 50 per cent of their requirements of imported raw materials should be given. The last category consisted of all other non-priority industries. The Central Small Scale Industries Board accepted the recommendation at its Srinagar meeting about a year ago but the same has not been imple-

or a high degree of mechanisation has no pronounced impact on economies and the units producing them are capable of meeting the total requirements of the country, the production of some of them has come to be reserved for small-scale industries. So far 124 such items have been reserved. Many of them are at present being manufactured by large and medium units, also. But they are not to be permitted to expand their production. It is estimated by the Small-Scale Industries Development Organisation that small units which employ 50 or more workers and use power and 100 or more workers without power produced in 1970 goods worth about Rs. 4 050 crores and employed 33 lakh workers. When the smaller units are taken into consideration these figures will go up considerably. Unfortunately, the latest analysis of the Annual Survey of Industries conducted by the Central Statistical Organisation is not available. The one available is for the year 1965. It clearly shows that while of all factories, small factories had only 10.2 per cent investment in fixed assets, they accounted for 91 per cent of the units, 39.6 per cent of the employment and 29.7 per cent of the gross output. Thus the same amount of investment in small-scale industries gave a better return in the number of units, value added, employment and production than the large-scale units. They have been saving large amounts of money to the public exchequer by supplying stores at lower prices than the other sectors. Similarly by selling consumer goods to the people and producer goods to industries at lower prices they are helping both of them to have their requirements cheaply.

On the export front, although the volume of small industry exports is very small, it is creditable to find that in 1970-71 (upto November 1970), out of 615 units which secured priority treatment on the basis of 10 per cent or more export performance 413 were small units. In the case of two units which exported agricultural machinery and implements, their entire production was exported. Then came readymade garments with 95 per cent, iron

safes and cabinets 93 per cent, bifocal lenses 81 per cent, buttons, plastic novelties etc. 71 per cent, woollen hosiery and knitwear, curry powder, pickles and jams 65 per cent, oil mill machinery, oil expellers, filter presses, etc. 62 per cent. In several other products, some small industrial units exported 40 to 50 per cent of their production.

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mented As regards scarce indigenous raw materials, it is a matter of regret that the Government of India does not utilise the powers given under the Industries (Development and Regulation) Act and ensure that a due share of scarce indigenous raw materials is made available to small industries at a reasonable price Further, whatever scarce raw material small units get through canalised agencies are priced high All this adversely affects small industry's competitive strength

The second handicap is of inadequate availability of working and term capital Since the introduction of social control but particularly since the nationalisation of 14 major commercial banks, small industries have been getting larger facilities from them State Financial Corporations have also been more active As at the end of December 1971 commercial banks had advanced Rs 482.84 crores to 1,48,969 small industry accounts and at the end of September 1971 the State Financial Corporations (SFCs) had helped small units with outstandings totalling about Rs 115.36 crores While the SFC loans are generally for land, building and machinery, those of the banks are for working capital More than the banks and SFCs, the credit for this liberalisation goes to the Government of India for introducing the Credit Guarantee Scheme which makes good 75 per cent of the banks' losses Then again, the pioneering work made by the State Bank of India, which together with its subsidiaries, accounts for advances made to about 40 per cent of the units needs to be mentioned The National Small Industries Corporation has helped in a big way small industrialists to have machinery on hire-purchase basis but at the moment there is dearth of both rupee funds and foreign credits with it, with the result that it has suspended accepting new applications The Government should make available adequate funds to it While, as compared to five years ago, the total amount advanced and the number of units assisted is impressive, the fact remains that their number is hardly about 20 per cent of the aggregate number of registered and unregis-

tered small units. It has to be emphasised that whatever the banks claim, their approach is not yet as need-based as it should be. But the real shortcoming of small units is that their own capital or equity base is weak. There are three ways of tackling the problem. First, the government or state corporations should have equity participation in small units. Secondly, there should be a reduction of corporation tax with an exemption limit for small industry companies. And thirdly, there should be Limited Partnership Act.

In the US, Government purchase programme has been successfully utilised to develop small industries. It was an American expert who advised the Indian Government on the best way for small industry's participation in Government purchase programme. However, small industry's share in total Central Government purchases of indigenous stores is extremely small, as can be seen from the following figures.

(In crores of rupees)

Year	Total orders for indigenous stores	Orders on cottage and small-scale industries
1969-70	430.79	32.27
1970-71	518.30	42.63
1971-72*	752.27	86.12

* Provisional figures.

The price-preference upto 15 per cent to small industry products is only notional. A system of reservation of items for exclusive purchase from the small-scale sector has been accepted and 167 items have been listed. But in spite of representations from small-scale industry even the items which have been supplied 100 per cent in competition with the large-scale industries have not been reserved. Small industry's position will improve only if it is statu-

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torily made obligatory that a fair proportion of Government purchases shall be from small industries as has been done in the US. Increasing participation of small industries in the Central and State Governments' purchases programmes would to an extent solve the marketing problem of some units. But, with the emergence of a buyers market since the past few years, this problem is becoming more and more acute and will have to be specially tackled through co-operative effort with Government aid and emphasis on sub contracting and development of ancillaries.

Although the Industrial Policy Resolution speaks of differential rates of taxation in favour of small industries, no such rates have been made applicable to the sector as such. It is only in the case of products which are produced without the aid of power and those of tiny units in a few mechanised small industries that they are either exempted from excise levy or lower rates are made applicable. Neither the much-needed concession in the corporation tax nor a higher rate of development rebate is granted to small industries. Small industries as a sector should be given some tax relief to help them in overcoming competitive disadvantages that result from smallness and special relief to the tiny, manually operated and labour intensive among them.

Small industries have a great export potential if a positive programme for exports, on the lines of the one adopted for their development, is evolved and implemented. The Central Small-Scale Industries Board has a standing committee for export promotion. It has made valuable and constructive suggestions for such a programme. But the Ministry of Foreign Trade has not been giving serious thought to them. The Directorate of Export Promotion in the SSIDO is also weak. It needs to be strengthened. Similarly, the programme of reservation of certain items for exclusive production by small industries is not being seriously implemented. There are loopholes. The Government is not clear about the level of pegging the production

of reserved items of large and medium industries. Therefore pegging orders are not being expeditiously issued.

As for the programme of industrial estates, Government-constructed estates have succeeded only where the location proved to be suitable due to vicinity of developed industrial cities. Co-operative estates have largely been successful because of the keenness of the entrepreneurs to have them. A number of estates failed where they were erected only as a matter of political prestige. In future no estate should be constructed without a prior techno-economic survey. Lack of funds is the biggest bottleneck in the way of future construction of even worthwhile industrial estates. Many small industries need modernisation. A committee went into this problem. The Fourth Five-Year Plan mentions that a phased programme of modernisation of machinery and equipment will be undertaken initially for a group of selected industries such as machine tools, foundry and re-rolling. But the details have not been spelt out. In Japan there is a special law for it. It enumerates the items of aid and tax concessions. Our Government will have to pass a law and formulate a programme on similar lines.

It is now over fifteen years that the small industry's programme has been in operation. It has no doubt achieved much more than what was originally expected of it. But the Small Scale Industries Development Organisation (SSIDO) which is the mainstream from which the Government's assistance programme flows has not expanded enough to cope with the growth of small industries. It must have a staff at least comparable to that of the Directorate-General of Technical Development (DGTD) which is concerned with large-scale industries. In fact, since the SSIDO has both the promotional and regulatory functions, it must be equipped better. A special committee under the chairmanship of Mr. K. D. Malaviya studied the subject and made recommendations for its expansion but hardly any material action has been taken. With the entry of small industry in the sophisticated fields, the Small Industries Service Institutes need to be properly equipped to give guidance.

The same needs to be said of the State Directorates of Industries. But it is pertinent to note that funds earmarked by the Centre under specific small-scale industries schemes have been diverted by the States to other purposes. In the Third Plan period there was a shortfall of 27 per cent in the approved outlay for small-scale industries.

The growth of small industries has been largely in urban and semi-urban areas, particularly in and around industrial centres. About 60 per cent of the machines supplied by the NSIC have gone to eleven cities. Such a development is inevitable because infrastructural facilities and the industrial climate are in existence there. The Government appointed a committee and the National Development Council a working group to recommend measures for the dispersal of small and medium industries to backward areas. They made valuable recommendations quoting in support what had been done even in advanced countries. But the Government of India and the National Development Council failed to accept them. Big, medium or small industries will not be attracted to backward areas unless the Government created adequate infrastructural facilities and liberally granted concessions to them to compensate sufficiently for the disadvantages of location.

The programme of assistance to small industries is by executive orders and has no legislative backing. In the US and Japan where there has been a significant growth of small industries, special legislation has been enacted. In the US, Small Business Administration has been created by a special law, which is directly responsible to the President. What assistance has to be rendered is laid down statutorily. In Japan several laws have been enacted to deal with various aspects of assistance to small industries. In response to the persistent demand of the Federation of Associations of Small Industries of India, and the recommendation of the Estimates Committee, 1959-60 of the Second Lok Sabha and reiterated by the Working Group on Small Industries constituted by the Administrative Reforms Commission and the Central Small Scale Industries Board, the Government

of India has constituted a committee to draft legislation for small industries. Its report will be available on the eve of the silver jubilee of our independence. It is to be hoped that its recommendations will be implemented speedily and legislation passed. To conclude I would quote the prophetic words of our first Prime Minister, Mr. Jawaharlal Nehru. "There is an enormous scope for small manufacturers in India. Sky is the limit."

GROWTH OF FOREIGN TRADE

By Manubhai Shah

India's foreign trade has undergone many significant changes during the past 25 years and more particularly during the ten-year period spanned by the Second and the Third Five Year Plans, that is, between 1955-56 and 1965-66. This ten-year period was also marked by a widening trade gap because imports more than doubled, while exports increased slowly but steadily. The desire to reduce this gap, the sound industrial base that was laid during this period and the growing volume of assistance both from the advanced countries of the West and the socialistic countries of Eastern Europe resulted in some important structural changes in the country's foreign trade. So far as the composition of exports is concerned, there is a major shift from traditional to non-traditional items. The proportion of the traditional items in the total exports is now about one-fourth as against two-thirds in 1947-48. On the other hand, the share of two important groups of items, viz metallic ores and engineering goods, in the exports has risen rapidly. As regards imports, finished consumer goods have been practically eliminated from India's import list. The major items of import are industrial raw materials, petroleum products and capital goods. The import of capital goods, however, is showing a downward trend reflecting the diversified industrial structure that has been built in the country.

Significant changes have also occurred in the direction of the country's foreign trade. So far as exports are concerned, the UK which used to be the foremost market for Indian goods for some time after Independence has been relegated to a lower position. Among the free market economies the share of the US and Japan in India's exports is much higher than the UK's. The large-scale tying of aid with purchases from aid-giving countries played a major role in changing the direction of trade. An important development, which gave an impetus to the changes in the direction of trade was the rupee trade arrangements with the East European countries. As a result, trade with these countries has phenomenally increased and the USSR has emerged as the foremost trading partner of India, followed by the US and Japan. As regards imports into India, the US had the lion's share in 1970-71. The UK was a distant second and after it came Canada, West Germany and the USSR in that order. The share of the US must have come down during 1971-72 because of suspension of aid by that country. But by and large this ranking is likely to remain unchanged for some time to come, although there is every possibility of the share of the East European countries, especially the USSR, in India's imports increasing.

Table 1
INDIA'S FOREIGN TRADE
(Rs. crores)

	Imports	Exports	Balance of trade
Average of pre-Plan period	599.49	493.46	—106.03
Average of First Plan (1951-56)	723.40	605.86	—117.54
Average of Second Plan (1956-61)	976.45	609.25	—367.20
Average of Third Plan (1961-66)	1244.62	761.70	—482.92
1966-67			
(Devaluation on June 6, 1966)	2078.36	1156.56	—921.80
1967-68	2007.61	1198.69	—808.92
1968-69	1908.63	1357.87	—550.76
Fourth Plan:			
1969-70	1582.67	1413.21	—169.46
1970-71	1625.17	1535.16	— 90.01
1971-72	1853.00	1567.00	—286.00

Table 1 gives the basic data on India's foreign trade since independence

If the entire data were converted into dollar terms, during the 25 years of India's independence, India's foreign trade has more than doubled. In the field of imports, reflecting the industrial development in the country, there has been a considerable shift in the pattern of imports with the items of capital equipment and machinery and basic industrial raw materials and intermediates constituting the major items of imports, apart from foodgrains and cereals in times of scarcity and drought. It is clear that exports in the First Plan and the Second Plan had more or less stagnated. It is only in the Third Plan period that our exports took a big jump to an aggregate of Rs 3 825 crores on an average of about Rs 765 crores (pre devaluation) per year. After devaluation, our exports suffered a severe setback. Now at the end of five years, we are once again recovering the lost momentum.

Qualitatively speaking, there has been a substantial transformation in the pattern and the relative importance of three staple items viz jute manufactures, tea and cotton textiles, has been declining. Among new items of exports, India has emerged as an exporter of engineering goods to both developed and developing countries. Exports of iron ore and oilcakes have also become important elements in our trade. The export structure has become broad-based and the preponderance of countries like the UK and the US has gone down with our forging new trade links with the USSR and East European countries and the emergence of Afro-Asian world as free nations. India has also ventured to set up enterprises abroad and some 30 of them are in production, including some in advanced countries like the UK, Canada and the US. India's share in world exports has gone down from about 2 per cent at the time of independence to 1.2 per cent in 1960 and is now 0.6 per cent. This brings out in sharp focus the point that our performance, howsoever satisfactory, is not good when compared to what is being achieved by other countries in the world.

The first development decade which was ushered in with great expectation has not brought forth much results for us, nor for other developing countries, excepting those producing petroleum. There is a realistic recognition now that development cannot be imported from abroad and has to be propelled by our own efforts although we have a right to keep on urging rationally that world prosperity will increase if countries like ours receive necessary world assistance and support. Before referring to the foreign trade strategy as a whole, it might be worthwhile to note that in the first three years of the Fourth Plan export growth took place by 4.1 per cent in 1969-70, 8.6 per cent in 1970-71 and a mere 2.1 per cent in 1971-72. It may be mentioned that part of the large increase in 1970-71 is the result of change in the method of recording export statistics since November 1970 when provisional shipping bills and not actual shipping bills were taken for purposes of compilation of export data. If this factor were discounted, probably the increase would have been about 7 per cent in 1970-71.

Another disturbing point which came to light towards the end of July 1972 is the fact that the earlier expectations regarding exports in 1971-72 at about Rs. 1,620 crores have been belied because of a serious fault in compilation of export data in the Calcutta port. Be that as it may and taking the revised figures as correct, the increases in exports in 1971-72 which have been of the order of Rs. 32 crores only, are the direct result of an upward swing in export of jute manufactures by as much as Rs. 70 to Rs. 80 crores compared to the earlier year. There were increases also in items like tea, cashew kernels, unmanufactured tobacco, sugar and tanned hides and skins. The increases were more than counter-balanced by the decline in exports of items like iron and steel, iron ore, ferro-manganese, oil-cakes, cotton yarn etc. Exports of engineering goods have remained more or less static and the rise has been only of a marginal character.

Table 2
COMMODITY COMPOSITION OF INDIA'S EXPORTS*

Commodities	1950 51		1970 71	
	Rs crores**	Percent to total	Rs crores	Percent to total
Textile yarn	418.4	44.4	350.4	22.9
Tea	126.9	13.5	148.3	9.6
Metalliferous ores	15.3	1.6	142.1	9.3
Iron and steel	Neg	—	90.6	5.9
Leather and its products	40.8	4.3	72.2	4.7
Fruits and vegetables	17.7	1.9	65.0	4.3
Feeding stuff for animals	Neg	—	59.0	3.9
Non metallic ores	Neg	—	48.7	3.2
Transport equipment	Neg	—	39.9	2.6
Spices	41.7	4.4	38.8	2.5
Beverages and tobacco	29.1	3.1	32.6	2.1
Fish and fish preparations	3.9	0.4	30.5	2.0
Clothing	1.4	0.2	30.2	2.0
Sugar and sugar preparations	Neg	—	29.5	1.9
Non electrical machinery	Neg	—	28.1	1.8
Metal manufactures	Neg	—	27.8	1.8
Textile fibres	44.2	4.7	27.3	1.8
Coffee	2.1	0.2	25.1	1.6
Others	199.8	21.3	237.9	15.9
Total	941.3	100.0	1 524.0	100.0

Notes *Exports exclude re-exports

**Rs crores at post 1966 rupee devaluation rates

Sources 1 For 1950 51 K. H. Thanawala Statistics Relating to India's Foreign Trade 1948 49 to 1959 60 (Bombay 1967)

2 For 1970 71 Government of India Department of Commercial Intelligence and Statistics Monthly Statistics of the Foreign Trade of India Vol. I March 1971

Table 3

COMMODITY COMPOSITION OF INDIA'S IMPORTS

Commodities	1950-51		1970-71	
	Rs. crores*	Per cent to total	Rs. crores	Per cent to total
Non-electrical machinery	107.8	10.6	256.9	15.8
Cereals and cereal preparations	149.4	14.6	213.0	13.2
Iron and steel	24.5	2.4	147.1	9.1
Crude petroleum and its products	87.3	8.5	135.9	8.4
Textile fibres and their waste	218.5	21.3	126.7	7.8
Non-ferrous metals	41.0	4.0	119.6	7.4
Electrical machinery	37.1	3.6	69.3	4.3
Chemicals elements	15.1	1.5	68.0	4.3
Fertilizers manufactured	19.5	1.9	61.2	3.8
Transport equipment	64.1	6.2	58.3	3.6
Fruits and vegetables	30.1	2.9	43.2	2.7
Animal and vegetable oils and fats	6.5	0.6	38.5	2.4
Crude fertilisers and minerals	6.9	0.6	35.3	2.2
Non-metallic mineral manufactures	3.2	0.3	33.3	2.0
Paper and paper board	15.8	1.5	25.1	1.5
Medicinal and pharmaceutical products	15.4	1.5	24.3	1.5
Scientific instruments, etc.	13.5	1.3	24.2	1.5
Others	170.5	16.7	145.3	8.7
Total	1,025.2	100.0	1,625.2	100.0

Note: *Rs. crores at post-1966 rupee devaluation rates.

Sources: 1. For 1950-51, K. H. Thanawala, *Statistics Relating to India's Foreign Trade 1948-49 to 1959-60* (Bombay, 1967).

2. For 1970-71, Government of India, Department of Commercial Intelligence and Statistics, *Monthly Statistics of the Foreign Trade of India*, Vol. II, March 1971.

If we examine the history of world trade in the last decade, even though the total figures of the Eastern European countries are not available, a rough estimate of it would be about Rs 2,80,000 crores per year. Our participation in it was less than one per cent of the world export trade, which is woefully meagre for a country which has a population of one-sixth of the whole mankind. Therefore, even speaking from a purely physical angle, it should not be difficult for us to reach our targets which are very modest and yet which we find very difficult to fulfil, viz an increase of about Rs 100 crores a year.

Here in India we command a national gross product of Rs 30,000 crores which might become almost Rs 50,000 crores at the end of the Fifth Plan. To push seven to eight per cent of that to foreign countries should not be beyond our capability, more so as our country has been surcharged with the enthusiasm to do its bit for exports. The increase in exports that we desire every year is hardly half a per cent of our national gross product. Compared to the world trade, in which we have to push out our goods, it is just an insignificant portion and India can make it. I hold this view because in 1956, we wondered whether industrialisation could be achieved on the wider scale which our country was determined to achieve. Not only have we succeeded very well in industrialisation of the country from 'a pin to a locomotive and a jet plane', but we also find that the enthusiasm among the small, medium and big entrepreneurs for industrialisation is tremendous.

As regards the weakness of our export trade, firstly the primary consideration is that we are priced out in almost all the commodities and manufactured products. We are priced out in industrial manufactured goods. Even though this calls for long-term measures, we have to increase the productivity of the nation. This is not peculiar to India only. All the countries of the world when they started their journey on the highway of industrialisation had to overcome the built-in handicaps of a community not accus-

tomed to modern productivity practices and modern technology. Therefore, I would not try to run down, as many times some do, the people of our country, the entrepreneur, the agricultural producer or the planter in this country, by merely saying that he is too inefficient or too indifferent as compared with his counterpart anywhere in the world. We will have to create better technological and working conditions for higher productivity. We will have to provide for quicker and cheaper transport. The farmers must have adequate and right type of fertilisers so that the productivity of the soil may go up. We will have to provide various measures of soil conservation, irrigation, proper seeds, mechanical cultivation and all those things which go to raise productivity and bring down costs. So also about manufactured articles.

Many of our problems, both in terms of such large objectives as economic growth and of such specific and vital objectives as industrial relations, will not be solved as a matter of course. Unless we are able to make a successful frontal attack on the major problems of low industrial productivity, we cannot expect to overcome our colossal poverty. We have to pay attention to such topics as what trade unions can do in raising productivity. There is little that can be accomplished without the active co-operation of the working class. To this end, the Government, the National Productivity Council, industry and labour as a matter of policy and also of conviction, should attach the greatest importance.

Other significant factors which impinge on the export situation are: (a) Near stagnation in production of items having large growth potential. (b) Inadequacy of infrastructure development, especially in the field of shipping, rail, road, transport and power. (c) Adverse impact of rising shipping freight rates. (d) Problem of internal demand pull and the difficulties of earmarking production for exports. (e) Non-restoration of competitive strength of Indian products and the inevitable continuance of schemes

Table 4
INDIA'S FOREIGN TRADE

Year	Exports* (Rs crores)	Imports (Rs crores)	Trade deficit	Exports as per cent of imports
1950-51	947	1,025	78	92.4
1951-52	1,155	1,486	331	77.7
1952-53	910	1,056	146	86.2
1953-54	836	901	65	92.8
1954-55	936	1,034	98	90.5
1955-56	960	1,220	260	78.7
1956-57	977	1,423	446	68.7
1957-58	1,001	1,633	632	61.3
1958-59	902	1,424	522	63.3
1959-60	1,008	1,515	507	66.5
1960-61	1,012	1,768	756	57.2
1961-62	1,041	1,720	679	60.5
1962-63	1,080	1,783	703	60.6
1963-64	1,250	1,927	677	64.9
1964-65	1,286	2,126	840	60.5
1965-66	1,269	2,218	949	57.2
1966-67	1,157	2,078	921	55.7
1967-68	1,199	2,008	809	59.7
1968-69	1,358	1,909	551	71.1
1969-70	1,413	1,582	169	89.3
1970-71	1,535	1,625	90	94.5
1971-72	1,567	1,853	286	84.6
Compound annual growth rate between 1950-51 and 1971-72 (Per cent)	2.4	2.9		

* Exports include re-exports

Sources: (i) Upto 1964-65, Reserve Bank of India, Report on Currency and Finance (various issues),

(ii) Upto 1968-69, Government of India, Ministry of Foreign Trade, Import Policy for April 1971-March 1972 (Press Note);

(iii) Upto 1970-71, Government of India, Department of Commercial Intelligence and Statistics, Monthly Statistics of the Foreign Trade of India, Vols I & II, March 1971;

(iv) For 1971-72, Government of India, Ministry of Foreign Trade, Press Release, July 25, 1972.

of import replenishment and cash assistance etc. (f) Non-availability of sufficient raw materials, including steel and non-ferrous metals, at international prices.

One major problem which has now come to the fore is the rise in price of raw materials including jute, cotton (excepting for a break in prices in March-June 1972 due to a large crop, the Indian economy had to contend with heavy imports of raw cotton), oilseeds etc. The upward pressure on prices due to expansion of net bank credit by over Rs. 1,000 crores in 1971-72 and the need to meet the rehabilitation requirements of Bangladesh have also tended to create constraints in releasing supplies for exports or export production. The situation appears at the moment to be a difficult one which is aggravated by the fact that our debt obligations alone will require our earmarking at least one-fifth of our total exports to meet debt liabilities in terms of foreign exchange. At the same time, one has to bear in mind that in trying to build the infrastructure, irrigation facilities and providing inputs for fuller development of the economy, the scope for shutting out imports is minimal. Indeed, if we have to push the rate of growth, our overall import bill must go up because too much reliance on import substitution efforts can be misplaced and self-defeating. Self-reliance which has become a creed with our country does not mean in any sense that the import bill can be reduced because we will be doing so only at the expense of our economic and industrial development. As a matter of fact, all the necessary industrial raw materials which are in short supply domestically should be allowed to be imported in adequate quantum so that production is stepped up to capacity.

It is in this wider setting that one has to look at the problem of husbanding our foreign exchange resources in the best possible manner. This is, in my view, the most challenging task to be tackled in the Fifth Plan period. How does one retrieve the situation on the export front? This will depend on the kind of strategy we are able to evolve. The principal objective must be to place greater

Table 5
DIRECTION OF INDIA'S EXPORTS*

Countries	1951-52		1970-71	
	Rs crores**	Percent to total	Rs crores	Percent to total
USSR	10.6	1.0	209.9	13.8
USA	205.2	18.6	206.8	13.7
Japan	22.5	2.2	202.1	13.3
UK	296.1	26.8	170.0	11.2
Egypt	10.1	0.9	55.3	3.6
Yugoslavia	0.4	Neg	39.2	2.6
Sudan	12.1	1.1		2.5
West Germany	13.7	1.2	32.2	2.1
Ceylon	26.0	2.4	31.8	2.1
Czechoslovakia	1.9	0.2	29.4	1.9
Canada	25.5	2.3	28.0	1.8
East Germany	Neg	—	24.5	1.6
Iran	6.5	0.6	26.6	1.7
Australia	73.4	6.6	24.4	1.6
Nepal	NA	—	24.2	1.5
Poland	0.1	Neg	22.1	1.4
Belgium-Luxemburg	12.1	1.1	20.3	1.3
France	16.6	1.5	18.0	1.3
Singapore	18.8	1.7	17.5	1.1
Hong Kong	8.0	0.7	17.1	1.1
Kuwait	6.0	0.6	15.7	1.0
Saudi Arabia	2.8	0.3	14.5	1.0
Others	337.6	30.2	256.1	16.8
Total	1,106.0	100.0	1,524.0	100.0

Notes * Exports exclude re-exports

**Rs crores at post 1966 rupee devaluation rates

Source Government of India, Department of Commercial Intelligence and Statistics Monthly Statistics of the Foreign Trade of India, Vol I (Various issues)

Table 6
DIRECTION OF INDIA'S IMPORTS

Countries	1951-52		1970-71	
	Rs. crores*	Per cent to total	Rs. crores	Per cent to total
USA	463.0	31.2	446.2	27.6
UK	255.8	17.2	126.0	7.9
Canada	30.5	2.1	117.3	7.2
West Germany	45.0	3.0	106.9	6.6
USSR	2.2	0.1	104.7	6.4
Iran	45.6	3.1	91.6	5.6
Japan	40.1	2.7	83.3	5.1
Egypt	63.9	4.3	39.8	2.5
Australia	27.8	1.9	36.6	2.2
Italy	28.3	1.9	28.9	1.8
Poland	0.5	Neg.	28.0	1.7
Zambia	NA	—	27.3	1.7
Saudi Arabia	15.8	1.1	24.2	1.5
France	17.2	1.2	21.3	1.3
Sudan	22.5	1.5	20.9	1.3
Czechoslovakia	4.4	0.3	20.2	1.2
Congo (Kinshasa)	NA	—	19.8	1.2
Netherlands	17.3	1.2	19.1	1.2
East Germany	Neg.	—	18.5	1.1
Tanzania	NA	—	17.6	1.1
Others	405.7	27.2	227.0	19.8
Total	1,485.6	100.0	1,625.2	100.0

Notes: *Rs. crores at post-1966 rupee devaluation rates.

NA—Not available.

Source: Government of India, Department of Commercial Intelligence and Statistics, *Monthly Statistics of Foreign Trade of India*, Vol. II (Various issues)

emphasis on increasing production, agricultural, industrial and mineral. Creation of export surpluses is the basic *sine qua non* of our economic activity. Compulsory exports and restraint on domestic demand can be looked upon as short-term instruments but not as a real engine of growth in the export sector. In fact, one has to guard against the fact that such exports in the past have tended at times to weaken our foreign exchange realisations in terms of decline in unit values. The major area in which a thrust can be made is the field of engineering goods, both labour intensive items as well as sophisticated products based on fuller and freer development of technology in India. The inflationary trends in the world markets can be taken advantage of only if we can ensure production of goods in India at competitive rates *vis a-vis* other suppliers. Emphasis on keeping up to delivery schedules and continuous improvement of quality has to be our watchword. New marketing techniques need to be developed and the whole area of streamlining the public sector organisations which will necessarily play a growing role in the field of foreign trade is of utmost importance.

Given the necessary will and the ability to order our affairs, it should not be difficult to bring about rapid changes for creating a sound base for export.

ENERGY: PROBLEMS AND PROSPECTS

By Manas Chatterjee

On an analysis of the present structure of energy use in the country it is seen that of the total consumption of energy about 25 per cent comes from petroleum products, 20 per cent from coal and lignite and 5 per cent from hydro-electric sources together making up only 50 per cent, the other half being obtained from non-commercial sources, mainly firewood and dung. It is found that with the beginning of the Fourth Five-Year Plan the Indian energy economy takes a turn towards oil as a primary source of commercial energy and at the same time the commercial energy group as a whole, gains over the non-commercial group for the first time, although the contribution from non-commercial sources is still about half of the total energy supply. These are the two crucial observations of very long-term significance and as such are the most important factors to reckon with.

Even though commercial forms of energy are gaining at a fast pace over the non-commercial forms, the consumption of non-commercial fuels is also increasing at a slower rate, more or less in keeping with the rate of growth in population. Rate of growth in coal consumption is barely 4 per cent per annum whereas consumption of petroleum is growing at a rate of about 10 per cent per annum. The import of oil presently standing at a level of 62 per cent of the total requirement is steadily rising with consequent pressure on balance of payment. In the context of this

situation prevailing in the energy field, substitution of petroleum by alternative indigenous energy resources wherever possible and non commercial fuels by commercial forms of energy assume the greatest importance. Non-commercial forms of energy which constituted about 75 per cent of the total consumption at the beginning of the First Plan period came down to a figure of about 50 per cent at the beginning of the Fourth Plan (1969-70). Even though the fall is substantial, the contribution from non-commercial sources is still about half of the total energy supply, and as such an important factor to reckon with. It is necessary that during the decade of 1971-81 substitution of non commercial forms by commercial energy is facilitated through regulatory measures. The urban consumption of firewood and dung may have to be completely stopped by cordoning off selected urban areas and large centres of population and arranging for alternative fuels in the form of soft coke, LPG etc.

The proportion of oil in the energy sector has already gone up from 1/5th in 1965-66 to near 1/4th in 1968-69 and is expected to increase further to very near 1/3rd in 1973-74. As against this the share of coal is gradually going down to less than 1/5th by the Fourth Plan end. This trend is running counter to the prospective availability position of indigenous resources of oil and coal and calls for multiple measures in all the energy sub-sectors of oil, coal and power which are listed out in detail under each sub-sector respectively.

Petroleum

The principal increase of demand for oil is taking place in consuming sector of transportation, both road and rail, and in the domestic sector where kerosene is the universal illuminant in the countryside. The longer-term repercussions of a dieselisation policy of the railway traction on the balance of payments need to be considered through a depth study and the electrification of the trunk routes connecting Delhi, Bombay, Madras, Calcutta as well as Delhi-

Madras and Bombay-Calcutta may be undertaken in a phased way and completed by 1980-81. The import of oil is as high as 62 per cent of the total requirement and the present indication is that by 1973-74 the requirement for import may go up to anywhere between 65 and 70 per cent. The present-day technology makes coal (particularly the high volatile variety of Assam) amenable to liquefaction and thereby increase the indigenous supply of petroleum crude. Also one of the ways to better utilise our surplus non-coking coal resource is to convert it to oil, wherever possible. What is necessary now is to complete a feasibility study to investigate into the application of the latest techniques developed within and without the country and scale up the cost data for a viable commercial proposition.

Coal

The present production of coal is of the order of 72 to 73 million tons per annum whereas investment already made in the coal sub-sector may enable us to raise the production to anywhere around 95-100 million tons per annum within a reasonably short time. Currently there has been a problem of lifting of the low grade non-coking variety of coal which has so far no use other than burning in thermal power stations. This built-in capacity in the coal sub-sector will have to be taken full advantage of by purposive programming of the consuming sectors of coal. Coking coal poses a formidable problem mainly due to its limited reserves. Blending of low-ash Assam coal with coking coal is under experimentation at the moment and full-scale plant study of these blends requires expeditious completion.

The production of selected grades of coal has gradually fallen from 18.5 million tons per annum in 1957 to 13 million tons per annum in 1968. This gradual fall in the selected grades of coal as well as in the very limited reserves of coking coal point to the need for conservation measures like completely stopping the use of low ash non-coking coal (such as Assam) for any purpose other than blending

with coking coal. After the abolition of control on coal a marked shift has been observed in the demand for higher and higher grades of coal by even the categories of consumers who can make do with much lower grades. Also there is a danger that barring the eastern region all the other regions in the country may change over to oil as a basic fuel for industries rather than going in for the indigenous coal resources.

It is necessary to make an attempt at rationalising the use of coal rather than fully rationing its consumption. To put it on a more scientific basis the grading of coal should be according to the calorific value of different types of non-coking coal since most of the industries using coal ultimately pay for the heat content for steam raising. A schedule of rationalised distribution may be drawn up for the consumption of coal not according to the type of industries but according to relative distances from the coal fields supplying coals of different thermal values. This will allow all the industries distant from the coal-fields, say, in far south-west and north-west regions, to consume higher therm coals to save on transportation, even paying for greater unit cost. On the other hand, the areas nearer the coal-fields may, after final costing, prefer to draw on the lower therm coals to save on unit prices.

Non-commercial fuels

Firewood and dung, the two major non-commercial fuels, are obtained free in the remote rural areas and so it may not be possible to replace them straightaway by any commercial fuel which has a price. But in the urban areas and developing villages where firewood is a priced commodity, its gradual replacement by soft coke or coal will be possible if phased over time. The principal bottleneck appears to be in the transportation to and storage of coal/coke at the demand centres rather than availability at the source of supply. The estimated consumption of firewood in urban areas for the year 1970-71 is 21 million tons. Proposals were mooted from time to time to set up areawise

depots for facilitating the railway transport evenly throughout the year, but no arrangement has so far been made for either setting up or maintaining depots for year's supply. The States as administrative units may have to undertake this responsibility in different regions so that the transport facilities, both railways and roads, could maintain the supply to such depots at an even rate throughout the year.

Power

The spatial distribution of coal and hydro as well as nuclear resources is not very uniform and as such a judicious combination of development of all the three major natural resources is essential to ensure the supply of electrical energy at the minimum cost to the economy. An examination of the comparative cost picture is necessary. The comparison should be at current prices of large thermal, nuclear and hydel plants (full or partial storage, high, medium, low head plants, and run-of-the-river plants). A depth study has on a priority basis to be taken on hand in this regard.

The present requirement is to have resource-oriented power stations with high voltage transmission links with the markets for power for better overall economy. In industrially developed countries there has already been a marked shift in the practice of market-oriented power stations to the resource-oriented ones. At the present moment, India stands half way between. An appraisal is necessary to find out the comparative cost of transportation of coal versus transmission of bulk power to different distances at the current rates of railway freight and pithead cost of generation to indicate how far at the most, or if at all, large thermal power stations could be sited away from the mine heads and washeries. An analysis of the optimised annual cost for point to point transmission of power in bulk vis-a-vis transportation of coal for various distances has urgently to be taken on hand.

It is becoming more and more evident that individual State's power resources in certain cases may not be adequate to sustain the industries likely to be set up in a particular State and at the same time in other cases there may be power resources much in excess of demand within their boundaries. As a consequence the State boundaries are becoming less meaningful for power planning. System inter connection and grid formation is an unavoidable 'must' and should transcend the State boundaries to tie up the best possible power resources to the widely spread out market for the same. For the decade 1971-81 power development may be planned on a regional basis rather than purely in the consideration of an individual State's demand-supply equation, so far as major generation and transmission schemes are concerned.

One difficulty that has been observed lately is in the pricing of electricity for inter-change amongst different States in a region because of the difference in inherent cost of generation at individual plants under the ownership of various States. Pooling of tariff within each region should be one of the principal aims during the decade. Although large generating capacity has already been created and is being enhanced at a fast rate, greater utilisation of the same is yet to be achieved. During the decade transmission network may be adequately reinforced to ensure that each and every power station available in a region is pressed into service at the appropriate position in the load curve, whether peak, base or intermediary, depending on their capabilities for both power and energy supply.

Power equipment

A capacity for producing power equipment of the order of 5 million kw per annum has already been laid on the ground in a number of heavy electrical plants. The present level of addition to generating capacity is (at the maximum) of the order of 1½ to 2 million kw per annum and only by the end of the decade it may be anywhere

between 4-5 million kw. So the country will be left with a comfortable margin between manufacturing capability and the power generation programme throughout this decade. In fact there is an apprehension of possible disengagements between production of generating equipment and their installation schedules which is being felt even now. It is necessary to find out ways and means by which the manufacturing plants could turn out their full output and thereby take advantage of the economies of scale. Standardisation of set sizes, improvement in quality, and better use of indigenous raw materials will be required to make the products competitive in the international market. An analysis of the unit cost of indigenously manufactured heavy electrical equipment and as to how to increase their competitiveness in the international market needs be undertaken with a view to identifying their export potential.

Transportation

A low draw-bar efficiency of the order of 5 to 6 per cent of utilisation of classical fossil fuel of coal in railway traction has led to the quick change-over to oil and electricity as a basic source of energy in recent years. The country being short of petroleum and its products, heavy dependence on the same may put a strain on the balance of payments position. But electrification may be carried out depending completely on indigenous resources. It is necessary to quantify the benefits to the economy as a whole, as against direct financial return, of an extensive programme of railway electrification such as (i) formation of national grid (transmission network), (ii) countryside electrification, (iii) absorbing the manufacturing capability for heavy electrical equipment, (iv) lifting of surplus non-coking coal for power generation, (v) import substitution by diverting the fast growing demand for diesel oil, (and thereby for petroleum crude) to the indigenous coal and hydroelectric resources etc.

Agriculture

With most of the available agricultural land of our country under cultivation, the horizontal development of agriculture for the needed levels of production seems to have reached its limit. The answer obviously lies in planning for the vertical development involving intensive use of manpower, material and energy. Manpower, there is an excess, for material inputs in the form of seeds, fertilisers and pesticides, provision to the possible extent has been made in the Plan. But as far as energy is concerned, neither there is an adequate supply nor even an assessment has been made so far regarding the desirable quantum of input over time. A scheme for controlled experimentation in the field covering different agroclimatological regions in the country has been initiated by the energy unit of the Planning Commission in collaboration with the Indian Council of Agricultural Research. The scheme has been included in the Fourth Five-Year Plan and necessary financial provisions have already been made.

Energy Pricing

Indigenous availability of all the energy resources are not such as to permit us to go the way the present trend will take us. In view of the uneven resource position in terms of quality, quantity and spatial distribution the present trend, if allowed to continue, will lead us to a high energy cost economy calling for avoidable investment and expenditure of foreign exchange. A rational pricing policy in the context of indigenous energy resources position may be used as a suitable instrument of correction for the untenable situation in the energy field that is anticipated if the current trend is allowed to continue unabated. The present policy should reflect the scarcity value of every kind of energy resource in Indian conditions to curb the growth of demand for the type of energy which involves heavy foreign exchange expenditure and at the same time encourages the fullest utilisation of the indigenously available resources like surplus non-coking coal, hydro-

power etc. A pricing policy covering the energy sector as a whole may lay down the principles of a suitable tax structure and built-in incentives thereby helping the channelling of investment in right directions to ensure energy supply at the minimum cost to the economy.

R and D

(a) Coal:

(i) Pilot Plant study in semi-commercial scale for determining the technical feasibility and economics of hydrogenation of coal to obtain crude petroleum and its products. Assam coal has a very high volatile content, low ash content and a substantial quantity of sulphur. The hydrogenation process taking advantage of these factors can supplement indigenous crude and perhaps sulphur production also, which is imported in quantity.

(ii) Production of soft coke on a mass scale through low temperature carbonisation process for distribution to urban areas as a substitute for firewood and dung.

(iii) Blending of low-ash Assam coal with high-ash coking coal in the Bengal-Bihar fields for the production of metallurgical coke with optimum ash content.

(b) Petroleum:

(i) Investigation into the possibility of tapping oil from the pre-tertiary sediments, the Himalayan regions and Ganges basin.

(ii) Feasibility and economics of hydro-cracking of certain petroleum products to supplement the middle distillates which are continuously in short supply and are likely to remain so.

(c) Power:

(i) Experimentation with tertiary winding transformers to evolve a suitable equipment for the distribution of

power at standard voltages in the countryside making use of the sub stations erected for main line railway traction (electrified)

(ii) Research on operational problems of 400/500 kv transmission lines for bulk transfer of power from pithead thermal stations to the load centres at distance

(d) Atomic energy:

Intensive experimentation with fast breeder techniques at the reactor presently being set up at Kalpakkam, Tamil Nadu, for the choice of a fuel cycle based on indigenous resources of atomic minerals

EVOLUTION OF UNION-STATE FINANCIAL RELATIONS

By D. T. Lakdawala

Prior to the declaration of Indian Independence, the Indian polity was governed by the Government of India Act, 1935, of which only one part, i.e., that relating to British India, was in force; the Indian States had not acceded to the Union and, therefore, continued to be governed by treaties, conventions and agreements between the paramount power and themselves. With the announcement of independence, a new basis had to be found for the relationships between the Union Government and the Indian States. While for some time the situation was vague, undefined, and changing from State to State, it was soon decided, in consultation with the Indian States, to reconstitute and integrate them by placing them on par with the erstwhile British provinces. This implied a simultaneous need to bring their financial powers and expenditure functions in harmony with the latter. The radical goal called for a number of transitional adjustments. The Indian States had in principle the combined tax powers of the Union Government and the States¹, but they were hardly using their direct tax powers. The citizens and businesses of the Indian States had now to get accustomed to pay the prevalent heavy direct tax rates in British India.

1. These were somewhat restricted because of treaty commitments or limitations levied by the paramount power.

In the new context, the States had to forgo their powers to levy customs duties, land customs and excises. While no compromise was made on the fundamental question of distribution of functions, enterprises and tax powers, time had to be allowed for adjustment. It was decided as a result of the recommendations of the Indian States' Finances Enquiry Committee (1948-49), constituted to look into the desirability and feasibility of financial integration of Indian States and unions of States with the rest of India, to put their citizens on par with other Indian citizens, the States should be fully compensated for five years for the gap between the loss due to some tax powers and enterprises having passed over to the Union Government and the savings in expenditure due to the transfer of certain functions like defence. The grant was to taper off in the next five years. This principle found wide acceptance. The only special treatment the States demanded and got afterwards, was Special Development Grants of Rs 3 crores on a population basis. The first Finance Commission took the view that their problem was no longer a special one and could be looked after in the same way as that of other backward States. After the States' reorganisation in 1956, the problem entirely disappeared, and a knotty question was completely solved.²

Transfers of Central funds to States

The Indian Constitution of 1950 gave a new set-up to the Union-State financial relations. Apart from readjustments in tax powers and functions, it provided for a quasi-judicial mechanism to settle the details of tax-sharing of the Union Government with the States and of grants to them. According to Article 280, the President was to appoint every fifth year, or at an earlier time, a Finance Commission, which was to recommend the distribution of personal income and excise taxation between the Union and the States, and among the States *inter se*, and also the

² For a fuller exposition regarding the States of Kathiawar, see C N Vakil etc *Economic Survey of Saurashtra*, pp 410-22

principles of distribution of grants-in-aid of revenues to States in need of assistance. The President could also refer to them any other matter in the interest of sound finance. The Finance Commission was in a way an extension of the practice followed earlier of the appointment of a distinguished financial expert like Mr. Auto-Nimeyar or Mr. Deshmukh to advise on filling in the details of tax-sharing, grants and even public debt, but it was a more elaborate and formal arrangement and had a constitutional blessing. It sought to ensure that, instead of there being internecine and protracted struggles and disputes between the two layers and these being resolved by political bargaining, they should be settled periodically by hearings and arguments before five wise experts specially appointed for the purpose, so that there would be greater dignity and rationale.

The experience of the working of this device for the last 20 years—the first Finance Commission was appointed in 1951—has revealed two wide gaps in the arrangement. Central loans to States were not covered, as perhaps it was assumed the States could borrow in the internal market on their own, or because the relationship on this count was governed by entirely different 'commercial' principles. But the States could not borrow large sums from the public on their own. Central loans were not given on commercial principles so that their repayment had to be the subject of special arrangements. Besides, Article 275 under which the Finance Commission was expected to look into the States' case for grants was not the only article under which assistance on revenue account could be provided to the States; Article 282 also provided for Central and State grants for any public purpose, and a reference to the Finance Commission was not mandatory for Central assistance under it. Since the Finance Commission was an *ad hoc* body, aid for calamities whose extent could not be foreseen and assistance to ensure satisfactory execution of Central schemes contemplated between the two Finance Commissions could be legitimately given under this provision. But

Table I
TRANSFERS FROM CENTRE TO STATES

TRANSFERS FROM CENTRE TO STATES							
(In crores of rupees)							
1	2	3	Grants		Loans		Grand total (2+3+6)
			Shared taxes	Total	Of which Finance Commission*	Plan	
1st Plan period	352.5 (27)	214.8 (17)	38.8*	—	719.7 (56)	—	1,287.0 (100)
2nd Plan period	710.1 (26)	700.4 (25)	168.9	254	1,374.8 (49)	304	2,785.3 (100)
3rd Plan period	1,196.0 (21)	1,302.9 (23)	283.5	571	3,101.4 (56)	1,944	5,600.3 (100)
Annual Plans (1966-69)	1,279.3 (24)	1,399.3 (26)	421.8	379	2,692.7 (50)	1,384	5,371.3 (100)
1969-70	621.7 (28)	536.1 (25)	152.7	251	1,036.1 (47)	323	2,193.9 (100)
1970-71 (R.E.)	755.5 (33)	570.1 (24)	140.1	314	1,011.7 (43)	460	2,337.2 (100)
1971-72 (B.E.)	850.3 (32)	835.5 (32)	127.6	363	937.1 (36)	502	2,622.9 (100)

* From 1952-53 to 1955-56

the Article was extensively used to give large plan grants for plan development on revenue account on the recommendations of the Planning Commission. By the time of the appointment of the third Finance Commission, the Government of India seemed to have come to the firm conclusion that the Finance Commission was not the proper body to recommend Plan grants and should only, therefore, concern itself with the non-plan revenue needs of the States. The terms of reference of the fifth Finance Commission specifically excluded the requirements of the five-year plan from its purview for the purpose of recommending the principles of grants-in-aid and the sums to be paid to the States in that connection. This meant a predominant part of assistance to the States—between three-fourths and three-fifths—being kept outside the purview of the Finance Commission (*vide* Table 1). A review of Union-State financial relations will have, therefore, besides the five Finance Commissions' recommendations, to consider Plan grants, Plan loans, and other Central assistance.

Finance Commissions

The first Finance Commission was appointed two years after the enactment of the new Constitution; the fifth Finance Commission submitted its report in 1969. The sums transferred to the States as a result of their accepted recommendations have substantially increased. From the time of the first Finance Commission, besides income-tax which was to be compulsorily shared, sharing of excise duties has also been recommended; in both cases, the basis and the States' shares have been so changed (*vide* Table 2) that the States have obtained larger amounts, as a whole. Increase in national income and consumption and widening and deepening of the shared tax structure³ as a result of changes in the tax system have also contributed to the

3. A major change in the opposite direction was made in 1959, when by deciding on the abolition of credits to individuals of taxes levied on distributed profits of companies the tax was transformed from a personal income-tax to a company tax.

Table 2
DISTRIBUTION OF INCOME AND EXCISE TAXES AS RECOMMENDED BY FINANCE COMMISSIONS

	Coverage	Percentage to be distributed among States	Basis of distribution among States	Remarks
<i>(a) Income Tax</i>				
1st Finance Commission	Net proceeds of taxes on income other than agricultural income excluding proceeds attributable to Union Territories or taxes in respect of the Union emoluments	50	80% population, 20% collection	100% population goal
2nd Finance Commission		60	90% population, 10% collection	
3rd Finance Commission		66½	80% population, 20% collection	
4th Finance Commission		75	80% population, 20% collection	
5th Finance Commission	Advance tax collections included	75	90% population, 10% assessment	
<i>(b) Excise Duties</i>				
1st Finance Commission	Tobacco, matches and vegetable products	40	100% population basis	Select excises on commodities of common and widespread consumption yielding a sizable sum taken to ensure sizable revenue, reasonable stability and freedom from fluctuation aim.

2nd Finance Commission	Articles added: sugar, coffee, tea, paper and vegetable non-essential oils	25	90% population; 10% for adjustments	...
3rd Finance Commission	All commodities on which excise duties levied in 1960-61 except (i) those where yield is below Rs. 50 lakhs a year and (ii) motor spirit (treated differently)	20	Population major basis, but some on account of relative financial weakness, disparity in development, percentage of Scheduled Castes, Tribes, etc.	Wide coverage because of need for broader base and inter-relation with sales tax.
4th Finance Commission	All excluding regulatory duties, special exercises and earmarked cesses	20	80% population and 20% relative economic and special backwardness; seven tests of backwardness taken.	Extension of same logic as by 3rd Finance Commission.
5th Finance Commission	All excluding regulatory duties and earmarked cesses; special excises to be included from 1972-73 onwards	20	80% population and 20% economic and social backwardness, two-thirds of which distributed only among States with <i>per capita</i> income below average <i>per capita</i> of all States	...

increases. The impact of the successive Finance Commissions can best be seen by comparing the sums transferred by way of tax-sharing in the last year of the previous Commission with those in the first year of the succeeding Commission (*vide* Table 3). If more recently the Finance Commissions have not increased the States' shares fast enough, it is due to their anxiety not to make surplus States more surplus.

Table 3
TRANSFERS FROM TAX SHARING UNDER
FINANCE COMMISSIONS' RECOMMENDATIONS
(Rs crores)

<i>Finance Commission</i>	<i>First year of Commission's period</i>	<i>Devolution of taxes in the preceding year</i>	<i>Devolution of taxes in the first year of the Commission's period</i>
First	1952-53	52.66	73.23
Second	1957-58	78.25	120.72
Third	1962-63	192.86	236.58
Fourth	1966-67	288.56	384.08
Fifth	1969-70	487.20	625.38

The distribution of the States' share of tax proceeds among States, *inter alia*, has varied from tax to tax and from Commission to Commission. As far as the major taxes—income-tax and excise duties—are concerned, population has been assigned a preponderant weightage of 80-90 per cent. Income-tax being compulsorily sharable with States, collection or assessment as an index of contribution has been assigned a weightage of 20-10 per cent. Since the States have a right to levy agricultural income-tax and the general income-tax does not apply to agricultural incomes, this has been considered as necessary in fairness to the more industrialised States compared with the agriculturally prosperous States. No such argument is applicable to Central excise duties where, on the ground of lack of data earlier and on account of its unsuitability later, the consumption criterion has not been accepted and the considera-

tions have been economic and social backwardness or financial weakness, and population. With the last Commission, there has been a distinct trend in favour of the poorer States by its laying down that 13½ per cent of the excise proceeds will only be distributed among States with *per capita* incomes below the all-States average.

Grants-in-aid under Article 275 have been the subject of serious criticism. Commission after Commission has laid down and endorsed principles which seemed unexceptionable, but it was not found possible to apply them in the absence of reliable data to measure tax capacities and expenditure needs of the States. The basic principle followed by most of the Commissions in recommending grants has been adjusted revenue deficits of the States on non-Plan account, the adjustments being mainly on account of differences in budgetary procedures and classifications. For the first time, the fourth Finance Commission laid down the salutary principle that the losses of departmentally managed enterprises should be ignored in calculating State deficits, and that full realisations of current interest dues should be assumed from autonomous corporations like State electricity boards.

The fifth Finance Commission extended the latter principle to all commercial departments, but it introduced two important modifications. First, as multi-purpose river schemes (excluding flood control) and irrigation (commercial) were only expected to contribute 2.5 per cent by way of interest on capital invested on them over the next five years, the remaining interest would be a charge on general revenue account, and must, therefore, be allowed for in calculating deficit. As the cost of electricity generation and distribution in Assam and Rajasthan was naturally so high that no reasonable rating policy could meet it, a partial concession was made. The more vital factors of differences in the States' tax structure and tax rates or those in standards of administrative or welfare services in relation to needs were completely ignored till the time of the fifth Finance Commission, which tried in other ways to shift the

emphasis from budgetary needs to broad fiscal needs. On the basis of broad calculations regarding the tax revenues, different States could gather, if they levied taxes on the same basis as the all-States' average, and of estimates of expenditures they would incur, if they had given the same services to their citizens, the fifth Finance Commission recalculated the States' deficits for the purpose of recommending grants. Since the necessary studies for this purpose were not made, the adjustments could not be as detailed as was necessary. It was found that the deficit of the States calculated on the new basis were much greater than those adjusted hitherto. The States were given supplementary diminishing amounts for five years to meet the gaps. The terms of reference ruled out Plan expenditure, and, therefore, the needs for expansion of different States for developmental services had to be excluded.

Plan assistance

Ever since the setting up of the Planning Commission Central assistance to the States on Plan account was used as a means to induce and enable them to carry out their Plans, which were decided in consultation with the Planning Commission, on the assumption that they would raise their resources as agreed to. The assistance consisted both of grants and of loans and was estimated on the basis of schematic principles which varied widely, the only common element being the sharing insistence. Only the second Finance Commission took into account the developmental expenditure of the States for the purpose of recommending Article 275 grants which, along with the Planning Commission grants, filled both the Plan and non Plan gaps.

The third Finance Commission tried to provide for 75 per cent of the Plan expenditure on revenue account, by a majority, but the Government turned this recommendation down. Since then, Plan grants and loans have been entirely on the recommendations of the Planning Commission. The detailed schemes according to which these were given aroused a lot of discontent among the States who com-

plained of the interference with their choices and the superfluous, unsuitable and vexatious conditions attached to assistance. The richer States could more easily abide by the conditions and earn their full grants; the weaker States could not fulfil them and had to draw more of the Plan assistance to which they were entitled by way of miscellaneous loans. It also began to be believed that Plan assistance was a matter of bargaining.

Responding to this criticism, the Planning Commission, with the help of the National Development Council, put the Fourth Plan assistance on an objective basis with little scope for Central discretion. With the exception of the three States of Assam, Nagaland and Jammu and Kashmir, for which specific Plan assistance was set apart, the distribution of Fourth Plan assistance was governed by a formula. Sixty per cent of the assistance was to be given on the basis of population; 10 per cent was reserved for the poorer States (with *per capita* income below the all-India average); 10 per cent for tax efforts (as judged by ratio of own tax revenues to State incomes); 10 per cent for major continuing irrigation and power projects; and 10 per cent for tackling special problems like metropolitan areas, floods, etc. It was also decided that 30 per cent of the assistance reserved for each State would be by way of grants. Most of the assistance would be untied and general. A valid criticism that can be made against this formula is its failure to match the conditions of Plan loans with the productivity of the schemes on which they are spent and the ability of the States to meet the claims arising out of their Plan borrowings. This is a part of the general failure to ensure the productivity of Plan investment.

Non-Plan assistance

Grants and loans are also given for non-Plan purposes from time to time. There is little that can be said in general about them except about those given for natural calamities. The Finance Commissions make allowances for such calamities in estimates of the non-Plan expenditures of the

States, but the calamity may be of such a magnitude that the sum so provided may be inadequate. In the last seven years, public sentiments as well as the greater magnitude of calamities often made it necessary for the States to provide for natural calamities on a more liberal scale and they have turned to the Central Government for help in these contingencies. Every time there is a request from a State Government for help in meeting such a situation, the Central Government sends a team to inspect on the spot and arrive at an estimate of needed expenditure. Of the excess of this approved expenditure over the sum annually allowed to the State by the Finance Commission for natural calamities, the Central Government gives three-fourths—one half by way of grants and one-fourth by way of loan. The fifth Finance Commission criticised this procedure and suggested that the entire three-fourths should come from the Centre as a grant.

Unauthorised overdrafts and ad hoc loans

Unauthorised overdrafts and ad hoc loans unfortunately occupy an important place in the sums the State obtained from the Centre and, therefore, call for a critical appraisal. Since this has been already done by the author in an earlier article⁴, only a few salient features are noted here. Unlike other forms of assistance, where the Central Government decides on the need and magnitude, in this particular form the State Governments force the hands of the Centre. Assistance is not asked for, adjudged and given, but just taken. This phenomenon, which began in a small way in 1950, increased in magnitude and assumed alarming proportions in the three annual Plan periods. It was made a special term of reference of the fifth Finance Commission. While the Commission recommended some changes in procedures of assistance to meet the States' difficulties, its most important finding was the location of a lacuna in the Centre's provision for State

⁴ "The Problem of Unauthorised Overdrafts", *Commerce*, March 4, 1972.

needs, viz, non-Plan capital needs of which the most important were in connection with repayment of Central loans. The Central Government took no particular heed of this recommendation. Instead, in consultation with the Planning Commission, it announced a scheme of special accommodation for five years to enable the States to finance their Plans. This arrangement mixed up non-Plan revenue and capital needs, the first a province of the Finance Commission and the other a no-man's land. It acted on the dangerous deficit principle which created a difficult situation. The fourth and the fifth Finance Commissions and the Planning Commission (regarding Plan assistance) made valiant efforts to rescue the situation. The Government provided more loans to repay loans without devoting any care and thought as to the manner in which the States would pay the interest on them and repay them. It was expected that, as a result of special assistance, the States would have no need to resort to overdrafts, but this did not deter the States and the overdrafts again reached menacing proportions. The terms of reference of the recently announced sixth Finance Commission give hope that the lacuna of non-Plan capital assistance to the States will soon be filled more scientifically.

Reforms in Union-State financial relationships

(a) **More tax powers to States:** There are major questions in Union-State financial relationships which demand urgent attention. The States give a feeling of great resentment at their undue dependence on the Centre. Can they be given more tax powers? Compared to other established federations, the States' direct tax powers in India look very limited. As the US experience, however, shows, even if the States are empowered to levy progressive taxes, basic limitations of tax allegiance prevent them from exploiting direct taxes on any appreciable scale. This explains how in war-time, when direct tax rates have to be stepped up to their utmost limit, the Centre is able to persuade the States to temporarily surrender these powers

and derives greater revenues even after liberally compensating them. Over the last 20 years, the States in India have voluntarily surrendered some tax powers to the Centre as in the sphere of additional excise duties in lieu of sales taxes, estate duty on agricultural land, etc., and there is some agitation for the States giving up agricultural income-tax powers to the Union Government.⁵ There is no parallel move in the reverse direction. While the States' tax powers have been criticised as inadequate, no concrete suggestion has been made for additional tax powers being transferred to them. The only way for the States to get more own tax revenues is to exploit their tax powers more fully, and there is good scope for doing so. They can also run their commercial departments more efficiently and profitably. Regarding capital receipts, they are more dependent on the Central Government and may continue to be so. A large part of their net capital receipts is derived from Central loans, their market loans not only need clearance from the Reserve Bank but are dependent for their success on nationalised institutions like commercial banks, the Life Insurance Corporation, etc.⁶

(b) **Automatic sharing formula.** The only way, therefore, to take the edge off the States' feeling of dependence on the Centre is to see if rules can be laid down so as to make the quantum of assistance from the Centre and its distribution among the States *inter se* automatic. The idea seems attractive but a little reflection on past experience shows its inadvisability. If the situation is likely to change rapidly, a mechanism which will review the situation periodically and decide details will work better. It is not possible in advance to lay down rules which will hold good for a long time. Fixed tax-sharing, grants or loans

5 We are not mentioning here the Central Sales Tax Act passed on the recommendation of the Taxation Enquiry Commission, as it may be regarded only as a rationalisation of the very unsatisfactory position before.

6 For a more systematic exposition of the subject, reference may be made to the author's forthcoming book on 'Resource Mobilisation by States' (University of Madras).

assistance at the time of the enactment of the new Constitution would have led to less satisfactory results than those obtained so far. We are in no better position in this respect now. It is difficult to foresee what exact changes in the magnitude and distribution of Central assistance will be needed in the next 20 years; one can only be sure that they will be substantial. Rigid decisions now will more or less freeze the existing patterns. The Finance Commission and the Planning Commission have shown flexibility in responding to new needs. They have ensured that the Central Government is under pressure to raise larger revenues and capital receipts and that a reasonable share of these is transferred to the States. In the absence of very sudden changes, it is difficult to see how the continuance of the present mechanisms, viz, the Finance Commission and the Planning Commission, could lead to developments in Central assistance unfavourable to the States.

(c) **Changes in mechanisms:** The need for continuing mechanisms like the present ones for deciding details of Central assistance does not mean that their structure, functions and rules of operation are ideal and need no change. Apart from the much-debated questions of a standing Finance Commission, there are other sorely needed reforms. In the first place, Central assistance outside the mechanisms needs to be regularised and rationalised. The sixth Finance Commission has been very rightly asked to undertake a general review of the States' debt position and suggest changes in terms of repayment and also review the policy and arrangements for financing of relief expenditure. It is to be hoped that, as a result of its assessment of past loans, sound rules regarding the purpose and conditions of new loans will be laid down. In this connection, it may be pointed out that the distribution of unconditional Plan loan assistance on an objective formula basis is not entirely satisfactory; tied loans will ensure better results. Close supervision is needed to ensure that proper schemes are drawn up, their economic feasibility examined, and works properly carried out. Departures

Table 4

STATES RECOMMENDED FOR GRANTS BY FINANCE COMMISSIONS

	Under Article 273*	Under Article 275(1)	Revenue gap**	Specific purpose	Total getting grants	Grand total of States	Name of States not getting any grants
1st Finance Commission	4	7	3	8 (Primary education)	13	16	Bombay, MP and UP
2nd Finance Commission	4	11	—	—	11	14	Bombay, Madras and UP.
3rd Finance Commission	—	14	—	10 (Improvement of communications)	14	14	Nil
4th Finance Commission	—	10	—	—	10	16	Bihar, Gujarat, Mahara- shtra, Punjab, UP and West Bengal
5th Finance Commission	—	10	—	—	10	17	Bihar, Gujarat, Har- yana, Maharashtra, Madhya Pradesh, Punjab and UP.

* This Article prescribed grants to jute-growing States in lieu of their share in jute export duty for a period at the most of ten years since the commencement of the Constitution.

** For part B States.

from detailed schemes, where necessary, should only be permitted after close scrutiny. A bank seems to be the best institutional form for organising the needed supervision without giving undue offence. It can, within certain limits, vary the terms of loans for backward areas or give soft loans but must ascertain if the detailed schemes are viable. This alone can ensure that the States do not again have to face the situation where they have to depend on the Finance Commission for paying interest on loans and devise *ad hoc* means to repay the loans.

The present distribution of the disbursement of Central assistance between the two Commissions seems irrational. There is a clear-cut distinction between expenditure on revenue account and that on investment, though the borderline overlaps. On the other hand, the difference between Plan and non-Plan expenditure on revenue account is vague and shifting. Most of the Plan grants are hardly directly connected with Plan investments; they are disbursed for the normal expansion of social services, which should be better looked after by the Finance Commission. The present division of current expenditure into Plan and non-Plan expenditure has resulted in the Finance Commission not being able to recommend grants to some of the poorest States wanting to expand their social services, simply because they had surplus budgets on non-Plan revenue account. This defeats the objective of equalisation of vital social services throughout the country (Tables 4 and 5).

Table 5
STATES NOT GIVEN DEFICIT GRANTS RANKED
BY PER CAPITA INCOME*

	<i>Lowest Five</i>	<i>Medium</i>	<i>Highest Five</i>	<i>Total</i>
4th Finance Commission	1	1	4	6
5th Finance Commission	2	1	4	7

* 1960-61 for the Fourth Finance Commission and 1962-63 to 1964-65 for the Fifth Finance Commission.

There is a growing feeling that, as a result of the multitudinous forces deciding the extent of Central assistance to the States, some backward States have got less than their due in spite of increasing conscious efforts to tilt the balance in their favour. The necessary objectives of Central assistance are not precisely defined, and the term itself is vague. All transfers are not assistance, and may not be subject to the same tests. Should Plan loans which have to be given on some considerations of productivity, rapid growth, and repaying capacity be included in Central assistance and be subject to the same criteria as tax-sharing and grants? The Finance Commissions are also asked to recommend the detailed distribution of taxes which belong to the States but have been surrendered by them to the Centre. There are sometimes, as in the case of additional excise duties, specific agreements governing their distribution, the Finance Commissions can only interpret them. There are also taxes levied under Article 269, where collection by the Centre is only for convenience. To apply the equalisation principle to them may be as difficult as in the case of own revenues of States. State investment out of loans, if properly made, should generate enough resources to meet interest and other servicing charges within a reasonable time. There should be no reason, therefore, why either capital repayment or interest transfers from the States to the Centre should be subtracted from total Central assistance. But, if the loans have been given for unproductive purposes or not been properly utilised, or if the terms of repayment are too stiff, would it not be more meaningful to consider net rather than gross transfer? In the context of a generally underdeveloped economy what preference can be given to the development of backward areas or, still more difficult, backward States? Given the limitations

Table 6
PER CAPITA CENTRAL TRANSFERS BY STATES, 1971-72 (B.E.)

Name of State	State income per capita (1962-65)	Tax sharing			Estate duties	Plan assistance (Fourth Plan)	Gross Central loan assistance excluding repayment R.E)	Central loan assistance excluding repayment R.E)	Non-Plan loans (1970-71)
		Income-tax sharing	Central excise sharing	Additional excise sharing					
1. Bihar	265	7.28	8.84	1.20	0.126	60.00	33.83	29.54	1.77
2. Orissa	306	7.02	7.76	1.31	0.118	72.94	59.28	44.13	12.90
3. Uttar Pradesh	306	7.45	7.68	1.61	0.128	59.53	32.25	25.09	1.82
4. Rajasthan	314	6.94	7.40	1.46	0.116	85.52	45.55	12.31	1.73
5. Madhya Pradesh	325	7.00	7.34	1.36	0.115	62.91	34.85	23.68	2.10
6. Kerala	341	6.03	5.87	1.56	0.106	82.24	41.99	31.82	8.36
7. Mysore	373	7.65	5.73	1.67	0.146	59.12	42.05	26.88	7.85
Average	263.72	7.17	7.48	1.46	0.123	64.03	38.03	26.85	3.89
8. Andhra Pradesh	386	7.60	5.94	1.76	0.133	53.31	39.31	17.19	6.05
9. Tamil Nadu	400	8.38	5.70	2.22	0.141	49.14	35.11	26.20	3.42
10. Haryana	445	7.18	5.39	1.90	0.110	78.73	53.76	36.70	18.11
11. Gujarat	462	8.11	5.26	2.75	0.119	59.20	39.21	29.28	3.29
12. West Bengal	465	8.96	5.55	1.91	0.112	49.73	55.12	43.60	10.09
13. Maharashtra	478	9.97	5.68	3.00	0.117	48.77	37.26	30.01	4.37
14. Punjab	492	7.82	5.81	2.15	0.147	74.96	38.55	26.40	4.19
Average	375.58	8.58	5.70	2.29	0.126	54.31	41.74	29.51	6.09
Overall average	460.27	7.79	6.69	1.83	0.124	59.74	39.67	28.03	4.86
Average for Jammu & Kashmir, Nagaland and Assam	313.79 *	6.98	6.23	1.60	0.144	199.18	100.00	79.35	10.08**

* Excludes Nagaland.

**Excludes Jammu and Kashmir.

Table 7
RANK CORRELATIONSHIP OF CENTRAL TRANSFERS PER CAPITA 1971-72 (BE), WITH STATE INCOME PER CAPITA (1962-65)

Type of Central transfer	Coefficient of rank correlation excluding Assam, Jammu and Kashmir and Nagaland	Coefficient of rank correlation including Assam, Jammu and Kashmir but excluding Nagaland
Tax sharing	0.03	-0.10
Income tax sharing	0.70	0.65
Central excise sharing	-0.85	-0.85
Additional excise sharing	0.90	0.79
Estate duties	0.10	0.15
Plan assistance (Fourth)	-0.37	-0.41
Gross Central loan assistance	-0.01	+0.01
Central loan assistance excluding repayment to Centre	0.17	0.002
Non plan loans (1970-71 RE)	0.34	0.33

of resources and the need to augment the latter quickly, should backward areas themselves be chosen for development in some order of priority? While these questions are legitimate, there is no doubt that, at least for transfer on current account, equalisation is an important objective, and the disturbing phenomenon is that apart from Central excise distribution no important item of transfers satisfies this test (Tables 6 and 7). A big step ahead is necessary in this direction, and the best way to take it may be to leave the distribution of all grants to the Finance Commission and revise the Plan loan assistance distribution formula.

THE TRADE UNION MOVEMENT

By Rohit Dave

The history of the trade union movement during the last 25 years is a history of the development of a movement from a weak and disorganised position to one having a representative character and speaking on behalf of the working class. When the 'Quit India' struggle was launched in 1942 trade unionism as a movement remained out of the great struggle for national independence. There were two national trade union organisations at that time. One was the All-India Trade Union Congress (AITUC) controlled mainly by the communists and the other the Indian Federation of Labour mainly controlled by the followers of Mr. M. N. Roy. There were veteran trade union leaders like Mr. N. M. Joshi who had a position of their own among the trade unionists. But they belonged to what might be called a liberal school of thought and as such were averse to plunging the trade union movement in a political turmoil. Individual workers and trade union leaders had participated in the 'Quit India' struggle. But these leaders controlled only a section of the trade unions in the country and had no effective say in shaping the policy of the national trade union bodies.

The workers were called upon to assist in the war effort by the communists on the plea that it was a people's war and unless Fascism and Nazism were destroyed the whole working class movement in the world might suffer. The individual workers or even the local trade unions

had hardly acquired the consciousness necessary to respond enthusiastically to such a plea. But a veteran like Mr. S. A. Dange who had spent his whole life in organising and leading the struggles of the workers did command the respect of the workers. This was one of the reasons why after some initial dislocations neither the industries nor the services in the country had to face any major labour problem.

The situation, however, changed radically after the war. Soon there developed an antagonism between the two countries that had emerged as superpowers after the war—Russia and the United States. The communists were no longer interested in maintaining the steady flow of goods and services. The inevitable post-war economic dislocations had resulted in a considerable number of workers being declared superfluous. The urban disturbances were growing and the workers were naturally anxious to start their own militant actions for the redress of their grievances. It was under these conditions that ministries were formed at the Centre and in the provinces in which national leaders participated. The British Government had finally made up its mind to transfer full sovereignty to India and Pakistan. The Congress was the natural heir to the British rule in India and the Congress Party began to apply its mind to the political and economic challenges facing the country. One of the most important challenges was that of the speedy development of the Indian economy with a view to providing basic requirements of the people, create a modern sector in the economy and cater as far as possible to the defence needs from the country's internal resources. It was felt by some of the Congress leaders like Sardar Patel that it was necessary to create a trade union movement capable of helping in the realisation of these economic goals. He, therefore, initiated a move to wrest the leadership of the trade union movement from the communist hands and entrust it to the nationalists. Out of these efforts the Indian National Trade Union Congress (INTUC) was born which was a

very significant event on the eve of Independence as far as the Indian trade union movement is concerned

The next development was the establishment of Hind Mazdoor Sabha (the HMS) It was formed as a result of an understanding between two organisations the Hind Mazdoor Panchayat and the Indian Federation of Labour The Hind Mazdoor Panchayat was formed by the socialists after they left the Indian National Congress They had already left the AITUC also because of its anti Quit India movement policy The distinguishing feature of the HMS was that it was not wedded to any political party There were many political matters on which the socialists who led the Hind Mazdoor Panchayat and the Royists who led the Indian Federation of Labour did not see eye to eye But as far as the trade union policies and programmes were concerned they had a common outlook Mr Asoka Mehta played a leading part in the formation of this new national organisation He was appointed the general secretary of the Hind Mazdoor Sabha for the first two years So soon after India became independent there were three national labour organisations in the field the INTUC the AITUC and the HMS Intense rivalry developed among them for enlisting the support of the working class The INTUC emerged in the end as an organisation with a recognised claim of having the largest trade union membership

In order to appreciate the reason why the INTUC could acquire this position it is necessary to take note of the labour policy adopted by the Congress The first major contribution of Congressmen after they assumed office at the Centre was the passing of the Industrial Disputes Act of 1947 The passing of this Act marked a new turn in the Government policy regarding the trade disputes During the Second World War the then Government of India had framed Defence of India Rules Section 81A of which provided a settlement of disputes and forbade strikes and lock outs Building on this idea the 1947 Act attempted to create a machinery for discouraging as far as possible

strikes and lock-outs. It consisted of several authorities under the Act such as works committees, conciliation officers, boards of conciliation, courts of inquiry, labour courts, tribunals and the national tribunal. Procedures were laid down for the reference of disputes to various authorities.

The importance of this new machinery was explained in the statement of objects and reasons published together with the bill. The statement explained that the provisions in relation to the works committee were meant "to remove causes of friction between the employers and workmen in the day-to-day working of establishments and to promote measures for securing amity and good relationship between them". A reference to the industrial tribunal would "lie where both parties to any industrial dispute apply for such reference and also where the appropriate Government considers it expedient so to do". It was further explained that attempts were made in the bill "to reorient the administration of the conciliation machinery provided in the Trade Disputes Act (1929)". The Government was thus launching a new experiment of inducing the two parties to industrial dispute to settle their differences amicably through voluntary bilateral negotiations and by referring them to a third party for adjudication in case the bilateral talks did not succeed in ironing out differences.

In 1946 the Bombay Industrial Relations Act was passed in which detailed provisions were incorporated classifying trade unions under different categories and according special privileges to the category called "representative unions". It also provided for the appointment of wage boards with powers to give binding decisions. These two Acts and the close association of many Congressmen in authority helped the INTUC in acquiring a leading position in the trade union movement which it still enjoys. Besides establishing these organisations and taking legislative steps to maintain industrial peace in the country, the new Government also addressed itself to the task of meeting the genuine grievances of the working class. For this purpose they relied on the Industrial Labour Conference which

was first held in August 1942. It consisted of representatives of the Central and Provincial Governments and of employers and workers. The Conference had decided to meet once every year and a standing committee was set up to function between the meetings of the Conference. The trade union movement had thus secured official recognition as a party whose co-operation was necessary for the industrial development of the country. This machinery for tripartite consultation was continued by the Government of the independent India.

Then on 10th May 1946 the Pay Commission under the chairmanship of Srinivasa Varadachariar, a judge of the Federal Court, was appointed which submitted its report on May 5, 1947. The next step was that of calling an Industries Conference in December 1947 with representatives from the Central and Provincial Governments, leading industrialists and labour leaders. It was this conference that had adopted unanimously the Industrial Truce Resolution. It accepted that the increase in industrial production needed "the fullest co-operation between labour and management and stable and friendly relations between them". It advocated mutual discussion on common problems and "the determination to settle all disputes without recourse to interruption in or slowing down of production." The interests of the consumers and the primary producers were also recognised, and it was laid down that both capital and labour "will share the product of their common effort after making provision for payment of fair wages to labour, a fair return on capital employed in the industry and reasonable reserves for the maintenance and expansion of the undertaking".

The Government had also before it the reports of the Royal Commission on Labour and of the Labour Investigation Committee which had reported in 1946. The programme proposed in the report of the Labour Investigation Committee had also recommended prescription of minimum wages, rationalisation of rates of dearness allow-

ance, promotion of fair wage agreement and certain provisions to the workers such as adoption of a health insurance scheme, provision of canteens, creches, health and holiday camps, industrial training and apprenticeship schemes. One of the important recommendations from the point of view of the trade union movement was regarding the improvement of machinery for the settlement of disputes, organisation of works committees and of tripartite industrial committees for a few industries. A committee was appointed by the conference to consider the question of fair wages which made unanimous recommendations. These efforts of the Government were an earnest attempt of its intention to bring employers and employees round the table to iron out their differences in terms of an accepted general framework. But the initial years of independence saw a large increase in stoppages, the number of workers involved and man-days lost. It did, however, help in the recognition of the trade union movement as an essential part of the industrial scene in our country.

The post-Independence trade union movement thus started with certain advantages. The country had launched on a massive programme of industrialisation which resulted in expansion and diversification of our industries. Chemical and engineering industries acquired a significant role in this new situation and the traditional industries also worked better under planned development. This enlarged the army of workers considerably and they became increasingly aware of the pivotal position they occupied under planning. This awareness on the part of the industrial worker awakened him to the realisation of the immense possibilities of the trade union movement. He had acquired a new outlook. As the report of the National Labour Commission points out, "the worker today is far more urban in taste and outlook than his predecessor." The idyllic notion of "a village nexus ... has receded to the background owing to the positive measures undertaken in the interests of industrial labour..." The Commission further points out that the industrial worker has acquired

during the last decade "a personality of his own" and this has resulted in a change in the worker's basic requirements. All these developments constituted a positive factor for the vigorous growth of the trade union movement.

An assessment of the success with which the trade union movement utilised these favourable conditions in strengthening itself in the post-Independence period is an interesting field of research. One great difficulty in arriving at foolproof conclusions is that labour statistics like other statistics relating to Indian economy are not adequate. Even in the field of theory the conclusions could only be tentative in view of the fact that much academic work has not been done in this field. There are some popular notions regarding the successes and failures of the trade union movement. But they need to be examined in the light of some agreed objectives and standards of performance.

A few conclusions, however, are possible. The number and membership of trade unions have grown considerably after Independence. In this connection, the National Commission on Labour notes "The years since Independence particularly the period 1947-57, witnessed a rapid increase in the number of unions, an increase brought about by a variety of factors such as the changed outlook towards labour organisations, the new spirit awakening in the country and the economic distress that followed the war years. The desire of political parties to help labour, as much as to seek help from it, was also a contributory factor." According to the statistics given in the report of the Commission, the number of registered unions in 1947-48 was 2,766 which increased in 1964-65 to 13,023. Total membership in lakhs rose from 16.63 to 44.66 during the same period. But the average membership per unit decreased from 1,026 to 592. This shows that while the number of workers joining trade unions increased considerably, many unions were not able to attract sufficient members within their fold.

Even with this rapid growth in the trade union movement only a small fraction of the industrial working force is represented in the Indian trade union movement. According to one calculation, the proportion of union members to the total number of workers in 1962-63 was about 24 per cent in sectors other than agriculture and the degree of unionisation varied widely from industry to industry. There is therefore still a tremendous scope for the trade union movement to grow in size. If at some stage the agricultural workers are also unionised the trade union movement can become a very powerful factor in our national life. The growth in numbers is only one of the indicators of the leeway made by the trade union movement. The more important criterion is the impact of the movement on the earnings of the workers and their working conditions. Here again only tentative conclusions are possible. The incomplete statistical material available in this connection shows that while money wages have risen considerably in the post-Independence period, real wages have not made much headway. Many explanations have been offered for this phenomenon. The large army of unemployed workers seeking employment on any terms, the weaknesses of the trade union movement, the failure of the rise in productivity per worker to rise fast enough to justify higher real wages and the shortcomings in our planning and fiscal and monetary policies are some of the factors mentioned. There is no doubt, however, that if the trade union movement acquires sufficient know-how to plan the strategy of the unions in individual cases, it can contribute much more both to the well-being of the worker as well as the growth of the economy.

In spite of the failure of the trade union movement to acquire the necessary know-how for this purpose the policy of the Government vis-a-vis the industrial relations in India has helped the worker to better his lot. Till very recently the main emphasis of the Government labour policy was on conciliation and arbitration. These have helped in formulation of certain general principles on

which industrial relations in our country should be based. These principles are slowly being absorbed in the philosophy of industrial relations. This is a positive gain. On the other hand, the Government policy encouraged litigious mentality both among the employers and the workers. In this the trade union movement had an obvious handicap. The trade unions could not afford the expensive legal procedures and the employers had an edge over the trade unions in this matter. Delay in settling the disputes was another consequence of excessive dependence on law courts. Both the employers and the workers therefore seem to be veering round to the view that bilateral collective bargaining processes are to be preferred as they could shorten the period over which the disputes are kept alive and also give the satisfaction to the parties that they have exercised their right of collective bargaining in safeguarding their interests. This new thinking is likely to help the trade union movement considerably. In bilateral talks the strength of a union is of considerable importance, and the workers in their own interest would prefer to enlist themselves as the union members. It will, however, also require considerable homework on the part of the trade union officials because in bilateral talks details count much more than general principles governing industrial relations. This should help the movement to acquire the necessary mastery over theory and details.

While the trade union movement's record in securing increases in real wages for workers is not very impressive, the industrial workers in India have secured many fringe benefits after Independence. The statutory and legal benefits include payments under the Workmen's Compensation Act, the Employees' Provident Fund Scheme, the ESI Scheme, by way of gratuity or pension. Retrenchment and lay-off compensation formed another important component of these benefits. Apart from these payments secured by the employees under different laws, the employers themselves have introduced schemes in some establishments for medical assistance, housing, canteens, education

of workers and their families, supply of articles at concessional rates, recreational facilities, consumer stores, civic amenities and so on. The benefits secured under these schemes vary from industry to industry and even from worker to worker.

One direction in which the workers have acquired better status in the community after independence is the voice their representatives have been given in deciding important industrial problems. This is the result of the policy of the Government to create conditions for the prevention of disputes and the promotion of good labour-management relations. The workers are encouraged to have a better knowledge about their place of work in all its relevant aspects and to associate them with its activities. The statutory works committees, joint committees and joint management councils have so far been operated on a voluntary basis in some units. The representatives of the central organisation are also consulted on tripartite basis in industrial committees, in the Indian Labour Conference and the State Labour Conferences and in wage boards, and special committees are set up from time to time to deal with specific issues of policy in which workers' representatives are appointed. All these development can help in instilling a sense of responsibility and participation among the industrial workers. It is true that so far the ordinary worker has very little say in the confabulations of these committees and conferences. But a beginning has been made and in course of time as the workers get better acquainted with what is offered to them they might be in a position to influence policy decisions at higher levels.

The procedure of consultation and representation is much hampered by the fact that there are many central organisations of workers. There are four central trade union organisations recognised at present. They are: the INTUC, AITUC, HMS and the United Trades Union Congress (UTUC). Then there are a number of organisations representing railwaymen, Central Government employees, defence personnel and so on that are not affiliated to any

national organisation. Recently the three national organisations, viz, the AITUC, INTUC and HMS have agreed to form the National Council of Trade Unions with a view to removing as far as possible the handicaps flowing from the multiplicity of the national trade union organisations. The experiment is still in its initial stage. Much will depend upon the spirit in which the representatives of the national organisations work on this council.

The outstanding problems in industrial relations are intimately connected with the progress of the industrial sector. We cannot afford to permit the solution of these problems on an *ad hoc* basis. A long-term plan is necessary to tackle them. It is here that there is some contradiction between greater recourse to bilateralism, on the one hand, and the need for planning, on the other. This is not peculiar to India. In countries like the United Kingdom and the United States also difficulties have cropped up due to the acceptance of the collective bargaining, on the one hand, and the impinging of the decisions through such bargaining on the growth of the economy as a whole. The Industrial Relations Act of the UK sought to strike a balance between these two opposite pulls. But it has resulted in a stalemate which has created problems for the political fabric of that country. The Government of India is at the moment considering a similar legislation for India. It would be worth their while to closely study the provisions of the UK Industrial Relations Act and the developments that have taken place as a result of the attempts to enforce this Act.

In India we are mainly concerned with increasing productivity per worker. It has now been realised that this is not possible without the active co-operation of the genuine representatives of the workers. At a recent national seminar on productivity it was suggested that the trade unions could help in raising enterprise level productivity in the country by supporting "techniques which lead to productivity rise without causing any retrenchment or unemployment or intensification of labour's burden." It was

further suggested that the trade unions might "enter into a long-term productivity based rewards agreement with management as a means of contributing towards national economic growth. Such agreements should keep in view the socio-economic needs, and not the point of view of exercising pressure on profit-sharing alone." These suggestions clearly indicate the role which the trade union movement can play in solving the crucial problem of raising productivity. Intimately connected with this is the question of automation. Here again it is not difficult to evolve a mutually acceptable formula. The difficulty arises in applying this formula to a concrete situation. The management in India insists on the right of determining the technological level of the units under their control. The trade unions are not prepared to give a blank cheque to the management. That is a crucial issue and here the Government can play the useful role of an honest broker.

There are certain other problems like the principles on which the wage structure should be based and the incidental benefits, like bonus, could be computed. The main difficulty here is that it is agreed on all sides that the Indian worker today does not get a fair wage and that he is entitled to have at least a share in the growth of the GNP. What should be this share? Who should pay it? What impact will it have on nearly 40 per cent of the population which is below the poverty line? These are some of the issues that baffle solution. And then there is that overall consideration of the impact of larger incomes on the price level. It would be unwise to insist on ready-made solutions for these problems. Continuous negotiations, spirit of give and take, acceptance of the need of recognising the crucial position which the industrial worker would occupy as the industrial sector grows apace—these might help in slowly bringing the two sides together with the Government holding the brief for safeguarding the interests of the public, especially the consumer. All this would be possible only if the trade union movement is given an opportunity to have its say in the shaping of

the national policies and the movement on its side recognised that the long-term interests of the workers are intimately bound up with the rapid growth of the economy so that the army of the unemployed is reduced to a minimum.

PROGRESS OF ADIVASIS THROUGH EDUCATION

By L. M. Shrikant

It is the accepted policy of the Government and the people of India since Independence to establish better contacts with the adivasis or hill tribes people. During the British rule there was a definite policy of permitting only limited contacts with these people and so when Independence came the Government spent quite some time on evolving a suitable and adequate policy in this matter. The population of scheduled tribes totals 3.8 crores to be exact and consists of about 633 different tribes. Social workers like late Dr. Verrier Elwin were in close contact with these people. They studied their customs and way of life and formed definite views regarding the approach the Government should adopt towards these people. For this purpose the tribals were divided into three categories. In the first category, Dr. Elwin placed the Bhil and Naga Chieftains, the Gond Rajas, the Bihar landlords, the Mundas of Bihar and the wealthy Santal and Oraon leaders. Though they retained some of their older tribal traditions, names and class totems they had accepted the modern life style. No harm was likely to come to them through cultural contacts and assimilations with the larger Indian population.

In the second category were placed tribals inhabiting remote hills where communications are poor. They zealously preserve their traditional way of life and offer stiff resistance to the alien culture that has pressed upon their borders. (1) Dhum Kuria of Oraons of Bihar; (2) Ghotul

of Bastar, Marias of Afujmahar of M.P. and (3) Morang of Nagas are characteristic institutions retained by this class. In this class can also be placed the tribals living in remote areas but more open to outside influences. The third class of tribals are most numerous and are those who, under the influence of external contact, have begun to lose their hold on tribal culture, religion and social organisation. They are in a sense Hinduised without being Hindus. Some have received a little education. Some have been to the tea gardens of Assam and have brought back new ideas and customs. Dr Elwin found them suffering from a sense of frustration and dismay, a certain loss of nerve. It is this class of the aboriginals who pose the greatest challenge to the policy makers. The problem is to devise ways and means whereby these tribals can be assimilated in the larger community without having to suffer despair and degradation.

Dr Elwin had in a pamphlet entitled 'The Aboriginal' (Oxford Pamphlet on Indian Affairs No 14, published in 1943) advocated a policy of temporary isolation and protection. For instance, he had suggested that an area should be reserved for the Baigas of Madhya Pradesh. He insisted that economic improvement should precede any scheme of reform or political representation. Dr Elwin proceeds to state further that 'culture contact and civilisation do no harm to those that can afford it. Acculturation must be based solidly upon an income. Our mistake is to force our scheme and our new expensive life on the poorest of the poor'. Thus, there was the advocacy of partial isolation for the tribals. Later, however, Dr Elwin changed his views and accepted the Panch Sheel of five fundamental principles of late Prime Minister Jawaharlal Nehru to govern the scheduled tribes policy of the Government. His principles were

1. People should develop along the lines of their own genius and we should avoid imposing anything on them. We should try to encourage in every way their own traditional arts and culture.

2. Tribal rights in **land and forests** should be restricted.

3. We should try to train and build up a team of their own people to do the work of administration and development. Some technical personnel from outside will no doubt be needed, especially in the beginning. But we should avoid introducing too many outsiders into tribal territory.

4. We should not over-administer these areas or overwhelm them with a multiplicity of schemes. We should rather work through and not in rivalry to their own social and cultural institutions.

5. We should judge results not by statistics or amount of money spent, but by the quality of human character that is evolved.

No statistical data are available about educational progress among different tribes. Financial provision for the first two Five-Year Plans for the education of tribals amounted to nearly Rs. 14 crores, e.g. 23 per cent of the total provision of all the welfare schemes for tribals. The Third Five-Year Plan provided for Rs. 15 crores under education for tribals. In 1952-53 the number of tribal scholarship holders in all grades of education was nearly 1,004. The number of ashram schools in Gujarat alone was 42 in 1958-59 which increased considerably later on. In the Second Five-Year Plan period the number of schools was 1,340; ashram schools numbered 248 and hostels 523. Since education is probably the most efficient instrument for ensuring equality of opportunity, both the Central and the State Governments have taken special steps in all the Five-Year Plans to see that adequate attention is paid to the educational development of the tribals. These steps have taken the form of (1) stipends, (2) scholarships, (3) free studentships, (4) mid-day meals, (5) free uniforms, (6) exemption from payment of examination fees, (7) book grants, (8) hostel facilities and (9) funds for opening special educational institutions like

Table 1

STATE WISE PERCENTAGE ENROLMENT RATIO OF SCHEDULED TRIBES TO OTHER COMMUNITIES
AND COEFFICIENT OF EQUALITY IN PRIMARY SCHOOLS IN 1950-51 AND 1965-66

State/territory	Percentage enrolment ratio		*Coefficient of equality	
	1950-51	1965-66	1950-51	1965-66
Andhra Pradesh	27	34	60.0	75.6
Assam	35.2	35.6	154.4	156.1
Bihar	10.7	12.7	90.7	107.6
Gujarat	15.2	14.1	91.0	84.4
Madhya Pradesh	15.7	23.1	50.5	74.3
Maharashtra	7.9	7.3	114.5	105.8
Orissa	13.3	22.6	33.3	56.5
Rajasthan	2.4	11.0	15.0	69.2
West Bengal	4.4	4.2	54.7	53.2
Andaman and Nicobar Islands	—	14.7	—	51.4
Himachal Pradesh	7.8	4.2	62.9	33.9

Manipur	45.4	64.9	94.4	134.9
Tripura	37.2	30.2	68.4	55.5
Other States and Union Territories	0.3	0.3	60.0	60.0
INDIA	6.0	6.7	69.0	77.0

* Let us assume that the scheduled tribe population is 'B' and that the enrolment of scheduled tribe student is 'A,'

Let us further assume that the population of other communities is 'D' and that their enrolment is 'C.' Then the 'co-efficient of equality' is defined as follows:

Proportion of scheduled tribe enrolment to the enrolment from other communities $= \frac{A}{C}$

Proportion of scheduled tribe population to the population of other communities $= \frac{B}{D}$

$$\text{Coefficient} = \frac{A/C}{B/D} \times 100$$

the ashram schools (where work-oriented courses have been prescribed) for tribals

The problem of education in the tribal areas is one of wastage and stagnation. These are not peculiar to the tribal communities, but the extent of wastage is much larger amongst them than amongst the general population. To meet the needs of the tribal children living in scattered or thinly populated areas, ashram schools have been started. In the whole of India the number of ashram schools for tribals is 237 up to 1971-72. These have caught the imagination of the tribals unlike the single teacher schools. Though both tribal boys and girls have still a long way

Table 2

YEAR WISE PROGRESS OF THE SCHEME FOR THE GRANT OF POST MATRIC SCHOLARSHIPS TO THE SCHEDULED TRIBES

Year	Number of scholarships awarded	Expenditure incurred Rs
1948-49	84	45 986
1949-50	186	94 965
1950-51	348	1 85 301
1951-52	576	2 81 780
1952-53	1 093	5 22 452
1953-54	1 587	8 18 538
1954-55	2 356	12 37 733
1955-56	2 883	13 05 238
1956-57	3 482	15 77 850
1957-58	4 300	18 97 538
1958-59	4 821	20 76 206
1959-60	6 112	23,88 691
1960-61	6 877	30 95 814
1961-62	8 548	36 77 669
1962-63	10 249	44 36 927
1963-64	11 836	50 27 741
1964-65	13 500	60 62 640
1965-66	15 925	70 57 880
1966-67	17 760	83 82 866

to go to catch up with the rest of the population, the gap between the education of tribal boys and of tribal girls is very wide and has to be bridged.

By and large an upward trend has been maintained in the enrolment figure. The number of students receiving post-matric scholarships also rose from 84 in the first year (1948-49) to the satisfactory figure of 17,760 in 1966-67. The expenditure during the same period went up from a paltry amount of Rs. 45,986 to Rs. 83,82,866. But the apprehension of unemployment among the educated tribal students is growing. Among the factors responsible for the wastage and stagnation in regard to education mention may be made of (1) poverty of the parents, (2) irregularity in attendance on the part of teachers and students, (3) inadequate scholarships, (4) lack of utility of the present system of education for the student who happens to be predominantly an agriculturist. Under the overseas scholarships scheme introduced in 1954-55 by the Ministry of Education for scheduled tribe students to take up higher studies abroad in special subjects, 44 tribal students have taken advantage of it till 1967-68. Every year four scholarships are awarded to such tribal students.

It is not possible to record any definite progress in the economic sector. Shifting cultivation is still followed in States like Andhra Pradesh, (Agency Area), Assam (including Arunachal), Bihar, Nagaland and Orissa and in the Union Territories of Manipur and Tripura. Notwithstanding the loss of fertility and soil erosion inherent in this system of tribal agriculture, it is difficult to substitute it by settled cultivation as shifting cultivation has become a way of life with them. A serious attempt is being made in Nagaland to introduce terracing in areas where shifting cultivation is being practised. Though in most of the States the agricultural land of the tribals has been made inalienable by law, these valuable lands have been passing on to non-tribals under some sort of benami transactions.

It is natural that as the tribals have lived in forests for hundreds of years it has become their well loved home. Their livelihood, nay their very existence, depends on forest wealth. It gives them food, fruits, edible leaves, honey, nourishing roots, wild game and fish. Therefore, they claim freedom to use the forest and exploit the minor produce and to hunt wild animals. Thus they have a strong conviction that the forest belongs to them. Frankly speaking the tribals who inhabit the forest areas are more efficient protectors of the forest than the whole staff of the Forest Department of the Government. Besides, the forest wealth is a must for the tribals, it is their main source of livelihood. But the present forest policy based on a resolution of the Union Government dated May 12, 1952, put an end to the freedom enjoyed by tribals in forest areas under the old Forest Policy of 1894. The new policy subordinating the tribal rights and privileges of the tribals to the income fetching policy created an unholy alliance between the exploiting forest contractors and the forest departmental officers both have become inimical to the real interests of the tribals.

The erstwhile composite Government of Bombay under the guidance of the late B. G. Kher and his bold colleague, Morarji Desai, brought about a revolutionary change in this policy in 1947. They encouraged forest labourers' co-operative societies to take the place of forest contractors under non-official voluntary agencies managed by selfless and reliable social workers. This revolutionary policy began liquidating the middleman and now the new Gujarat Government has declared to do away completely with the forest contractors and thereby ending the exploitation of the tribals. It has been a success in Gujarat and in Maharashtra. Unfortunately, this policy of encouraging tribal forest labourers' co-operative societies for exploiting forests has been given a go-by by the present Maharashtra Government. Maharashtra has re-introduced contractors in the garb of nationalisation of forests in Chanda District. The scheme of special multipurpose tribal blocks now

Table 3

STATEWISE PERCENTAGE ENROLMENT RATIO OF SCHEDULED TRIBES TO OTHER COMMUNITIES
AND COEFFICIENT OF EQUALITY IN MIDDLE SCHOOL IN 1960-61 AND 1965-66

<i>State/Union territory</i>	<i>Percentage enrolment ratio</i>		<i>Coefficient of equality</i>	
	1960-61	1965-66	1960-61	1965-66
Andhra Pradesh	0.8	0.9	17.8	20.0
Assam	20.9	26.3	91.7	115.4
Bihar	8.7	8.8	73.7	74.6
Gujarat	8.7	7.4	52.1	44.3
Madhya Pradesh	7.6	7.5	24.4	24.1
Maharashtra	2.5	3.4	36.2	49.3
Orissa	13.1	9.6	32.8*	24.0
Rajasthan	0.9	4.7	5.7	29.6
West Bengal	3.8	4.0	48.1	50.6
Andaman and Nicobar Islands	—	3.0	—	10.5
Himachal Pradesh	3.0	1.5	24.2	12.1
Manipur	38.6	47.0	80.2	97.7
Tripura	14.3	14.6	26.3	26.8
Other States and Union Territories	0.4	0.4	80.0	80.0
INDIA	3.6	3.7	41.4	42.5

* Figures relate to 1959-60 instead of 1960-61.

popularly known as tribal or T D Blocks was started during the Second Five-Year Plan Rs 6½ crores were provided by the Ministry of Home Affairs supplementing the funds provided by the Ministry of Community Development for C D blocks This was an important and a significant step for the development of tribal areas Special attention was paid to hitherto neglected areas There were nearly 500 T D blocks during the Third Five-Year Plan while provision for only 43 blocks was made in the Second Five-Year Plan In spite of huge amounts spent on this scheme, the achievement has fallen short of expectations

One of the patent maladies of the tribals in India admitted by all is their all-round exploitation, economically and also socially and politically Indebtedness is widespread in the tribal areas—except in certain areas of Arunachal—as the people there are exposed to traditional money lending The chronic indebtedness of the tribals has its origin in their poverty deficit economy and improvidence Legislation undertaken by States like Maharashtra Gujarat, Bihar, Andhra and Orissa to regulate the operations of the money lenders and scale down past debts have failed to loosen the stranglehold of the *Sahukar*, partly because of the devious methods adopted by the latter to defeat it, but mainly because of the strong sense of honesty in the tribals who will not repudiate their debts even when they have reached the condition of utter penury

The debts descend from father to son and even to the third generation creating a traditional deep rooted vicious system of bonded labour known as *Sagri* in Rajasthan, *Hali* in Gujarat, *Vetti* in Andhra, *Gothi* in Orissa, *Naukrinama* in Madhya Pradesh The prominent feature of the system is that a man pledges his person and a member of his family against a loan borrowed in most cases for marriage or death ceremonies No other agency has been created, not even the co-operatives, to meet the credit requirements of the tribal on easy terms The role of co-operatives in the tribal areas is still insignificant The fact is that the co-operative societies have not been able to touch even the

Table 4

STATEWISE PERCENTAGE ENROLMENT RATIO OF SCHEDULED TRIBES TO OTHER COMMUNITIES
AND COEFFICIENT OF EQUALITY FOR SCHEDULED TRIBES IN HIGHER SECONDARY SCHOOLS IN
1960-61 AND 1965-66

State/Union territory	Percentage enrolment ratio		Coefficient of equality	
	1960-61	1965-66	1960-61	1965-66
Andhra Pradesh	0.7	0.7	15.6	15.6
Assam	11.0	15.9	48.2	69.7
Bihar	4.1	3.8	34.7	32.2
Gujarat	2.0	2.8	12.0	16.8
Madhya Pradesh	2.4	3.9	7.7	12.5
Maharashtra	1.1	2.3	15.9	33.3
Orissa	3.9	5.7	9.8*	14.3
Rajasthan	0.6	3.5	3.8	22.0
West Bengal	14.6	1.5	184.8	19.0
Andaman and Nicobar Islands	—	7.0	—	24.5
Dadra and Nagar Haveli	—	21.3	—	2.4
Himachal Pradesh	3.0	3.3	24.2	26.6
Manipur	21.9	28.4	45.5	59.0
Tripura	0.7	7.1	1.3	13.1
Other State and Union Territories	0.1	0.2	20.0	40.0
INDIA	1.3	1.7	14.9	19.5

* Figures relate to 1959-60 instead of 1960-61.

fringe of the problem of indebtedness in the tribal areas. In some of the States however, useful beginnings have been made. The Government of Andhra Pradesh has established the Andhra Scheduled Tribes Finance and Development Corporation in April 1956. The main objectives of this co-operative corporation for linking credit with marketing are (1) To purchase all the minor forest produce collected by tribals and also grains (2) To sell them daily needs like kerosene, salt, cloth etc and (3) Provide easy credit facilities both for productive as well as unproductive purposes.

The Government has granted monopoly right to the tribals to collect certain minor forest produce and to the corporation the sole right to purchase them for sale or preservation. Twelve primaries known as Agency Producer Co-operative Marketing Societies (with limited liability) as agents of the corporation were started. The executive management of the affairs of the Corporation is vested in a Board of Directors composed of 19 members, 13 nominated by the Registrar of Co-operatives and the rest elected by the tribal members of the primaries. They issue loans to tribals for the following purposes (1) purchase of seed, manure and agricultural implements and fodder, (2) repayment of petty debts, (3) purchase of cattle, and (4) ceremonial expenses.

This institution has eliminated contractors, traders and money-lenders and introduced an element of co-operation to which the tribals are traditionally nearer than their brethren in the plains. Pooling of resources of the tribals is the surest method of creating sufficient credit for any co-operative bank. The Maharashtra Government has tried to replace the money-lenders in the tribal areas by making available money for giving loans to the tribals of certain districts and its efforts have been successful as the repayment has been to the extent of over 90 per cent of the loan advanced. Similarly, the Government of Orissa has started a sale-purchase and marketing organisation for the tribals which is now to be converted into a co-operative corpora-

tion which may also deal with minor forest produce. It is gratifying to note that the States of Maharashtra, Gujarat, Madhya Pradesh and Orissa have started tribal co-operative corporations. It is to be hoped that the nationalised banks with financial accommodation from the Reserve Bank of India will come forward to help financially these corporations.

Though the state is taking up the responsibility of the welfare schemes for the weaker sections of the society, like the scheduled castes and tribes, non-official agencies will have an important role to play in implementing these welfare schemes and supplementing them with qualified men and money. To create a responsive atmosphere for Governmental programme like free and compulsory primary education among the tribals and for removal of untouchability, non-official efforts will not only be helpful, but necessary and should be sought with all the encouragement Central and State Governments can give.

The Christian Missions working in inaccessible tribal areas have proved the usefulness of non-official agencies though they have not been so helpful in as much as they have been engaged in proselytisation. The creation of Nagaland and Meghalaya are the result of the pioneering work in education done by the Christian Missions. The same process seems to continue in Mizoram where literacy is the highest in the whole of India. The tribals in those States have been found reluctant to be called tribals and they are prepared to forgo all the facilities provided for the scheduled tribes. Similarly, the tribals inhabiting the Car-Nicobar island of the Andamans have progressed remarkably by forming co-operative institutions in all the villages of the small island with flourishing educational institutions manned by Christian Missions for over five decades.

The late A. V. Thakkar, (popularly known as 'Thakkar Bapa') of the Servants of India Society started such a Nationalist Mission for the Bhils, one of the scheduled tribes of Gujarat, in 1922 at Dohad in Panch Mahals

District of Gujarat It is now well-known as the Bhil Seva Mandal of Dohad of which I have been a life worker since 1923 He extended his programme of non-official social service to the States of Madhya Pradesh, Orissa, Rajasthan, Andhra and Assam He was successful in getting the various non-official institutions, numbering over 40, working for tribal welfare affiliated to a central organisation now known as the Bharatiya Adim Jati Sevak Sangh at Delhi with the help and encouragement of Nehru and Govind Vallabh Pant This central institution has consolidated and extended its field of activities organising a cadre of life workers with annual grants from the Government of India More than thirty tried and dedicated life workers have been carrying on welfare activities through various voluntary organisations affiliated to the central organisation in various States, working amongst various backward tribes, pushing through welfare programmes like the Ashram schools, tribal forest labourers' co-operative societies etc It is not possible to record here the impact of all these welfare activities, official and non-official But it is an indisputable fact that a good number of enlightened tribal leaders have come forward to occupy reserved seats in legislatures, State and Central Some of them are holding responsible positions like ministers and also senior posts in the Government, though the target of reservation in all the four grades of State and Central Government services is nowhere near fulfilment

POVERTY IN INDIA: MEASUREMENT AND AMELIORATION

By M. Mukherjee, N. Bhattacharya
and G. S. Chatterjee

In the Planning Commission's recent paper on approach to the Fifth Plan, the poor have been defined as those living below a basic minimum level of consumption, more exactly, below Rs. 20 per capita per 30 days (PCE) at 1960-61 prices or below Rs. 37.2 PCE, presumably at 1971-72 prices. In its view, the proportion of such poor has slightly come down in the last two decades, though the absolute number of people below the poverty line to-day is just as large as it was two decades ago. At present, over 220 million people are estimated to be living below this level.

Earlier it was hoped that the growth of the economy as reflected by a growing per capita income would take care of the distributional aspects, but this hope has not been realised, and the problem of absolute poverty in the sense considered here has not been solved. But the overall growth of the economy during the past decades created a condition in which the problem of poverty can be directly tackled, because resources potentially available for development now are large enough to enable us to simultaneously tackle the problem of poverty, at the same time pursuing other policies of overall growth of the type used in the earlier Plans. Further, the overwhelming electoral mandate given to the party in power on a manifesto of

eradication of poverty not only makes it imperative for the party to pursue this goal but also makes it easier to devise and implement anti poverty policies in view of the relative absence of discordance inside and outside legislatures at the Centre and in most of the States

The Planning Commission has suggested some concrete measures and indicated the ranges of cost, pointing out that the dimensions presented may change when more detailed calculations are undertaken. It is clear that serious effort will be made to include many anti-poverty projects in the Fifth Five-Year Plan for the country. The Planning Commission's paper states that one permissive condition for formulating a plan with heavy emphasis on many concrete anti-poverty measures is the sustained thinking of some Indian economists in this field during the last three years, and our paper is largely concerned with an examination of this body of thought as well as the empirical evidence that formed its underpinning. Only towards the end, we shall be concerned with some of our own ideas both about information and about measures.

But whatever be our findings, it is necessary to point out at the outset that we are in sympathy with the main objectives of eradication of poverty in the manner in which it is outlined in the Planning Commission paper. While we have pursued policies of growth of output and average income in the past, growth did not systematically occur where it was planned and it is difficult to link sectoral development of the Indian economy with the sectoral allocation of Plan resources. In view of this, an emphasis on projects creating employment for a large number of the unemployed in which the average earnings of the new entrants are low and preferably below the national average earnings per head, when such projects are successfully managed, need not necessarily lead to a lower rate of overall growth than what we obtained in the past. In fact, the crucial problem we face in the new type of projects is one of management. It is easier to spend, relatively unwastefully, a hundred crores of rupees on a steel mill than on a project employing

tens of thousands of unemployed for production of some useful goods or services.

The new orientation in policy is important because the activities contemplated are intended to affect the masses directly whereas our direct planning efforts in the past frequently affected small sections of the population. For this reason, it may also lead to a somewhat higher rate of overall growth. In one view, a larger rate of growth of the Indian economy would require raising of incomes of not small sections but the overwhelming bulk of the Indian population and to organise adequate supply of goods and services to meet the demand thus generated. This will entail thinking about industrial products and services (apart, of course, from relatively unprocessed food products) which the masses will buy, and the anti-poverty projects will be non-inflationary only when they are able to supply, to a large extent, goods and services of this type. In fact, the Planning Commission paper has not gone into details about the inflationary dangers of the anti-poverty measures, though it stressed, rightly, the importance of maintenance of price levels of the essential goods and services. But one should underline that price maintenance, in Indian conditions, would require a prior thinking about the future demand and goods and services to be supplied to meet this. Legislative and other measures in the absence of this have not proved very successful in the past.

II. Poverty in India

Our aim in this section is to present a broad picture of the situation in the sixties, drawing on some of the major studies in this field. We present some estimates of the proportion of "poor" people defined as those living below certain specified minimum standards of living; we try to identify the poor in terms of land-holding size, occupation, household size, etc. and we consider the disparities between rural and urban areas and between the different States of India in respect of level of living and the proportion of poor people. Poverty is both an absolute

and a relative concept. Relative poverty is known to exist even in affluent societies, for example, in the USA. The greater the inequality in level of living, the greater is the incidence of relative poverty. We are, however, concerned with the elimination of poverty in the absolute sense, defined in objective ways in terms of a minimum necessary level of consumption. Consequently, the analysis we present below relates to absolute rather than relative poverty.

✓ Table 1

**DISTRIBUTION OF POPULATION BY PER CAPITA
HOUSEHOLD CONSUMER EXPENDITURE PER 30 DAYS
BASED ON NSS 22ND ROUND (JULY 1967-JUNE 1968)**

Fractile group (per cent)	Average per capita expenditure per 30 days (Rs)		
1	Rural 2	Urban 3	Combined 4
0— 5	9 86	10 31	9 44
5— 10	13 45	14 84	13 20
10— 20	16 68	19 22	16 64
20— 30	20 25	24 20	20 44
30— 40	23 61	29 04	24 17
40— 50	27 07	34 24	28 07
50— 60	30 94	40 16	32 40
60— 70	35 56	47 36	37 62
70— 80	41 49	56 94	44 43
80— 90	50 45	71 92	54 94
90— 95	62 40	92 63	69 13
95—100	88 18	140 67	100 58
General population	33 30	45 23	35 49
No of sample households	15768	8628	24396

Size distribution of consumer expenditure Table 1 shows the distribution of population by a simple measure of standard of living, namely, per capita household consumer expenditure per 30 days (PCE). This table is based on the nationwide household budget enquiry carried out

in the 22nd round of the National Sample Survey (July 1967-June 1968). The fractile groups were formed after ranking the households in ascending order of PCE; the first group [denoted 0-5 in col. (1)] represents the poorest 5 per cent of the population, the next, denoted 5-10, the next poorest 5 per cent, and so on. In both rural and urban areas, the poorest 5 per cent of the population spent about Rs. 9 on an average per person per month, that is, about 30 paise per person per day; for the next poorest 5 per cent the averages were Rs. 13.45 in the rural areas; Rs. 14.84 in urban areas; and so on. The richest 5 per cent in the rural sector spent Rs. 88.18 on an average per person per month, as against Rs. 140.67 in the urban sector and Rs. 100.58 in the country as a whole. The overall averages are given in the penultimate row of the table.

The vast majority of the population were evidently very poor **in an absolute sense**. Thus, roughly nine-tenths of the people were spending less than Rs. 2 per person per day. Most of the households in even the richest group were not really well-off in an absolute sense of the term. Anyway we shall be mostly concerned with the **extremely** poor households in the lower rungs of the economic ladder. The quality of living of the poorest people can be judged from Table 2. This shows the overall pattern of consumption in rural and urban India as well as the pattern for the three lowest decile groups of population. Thus, the poorest 10 per cent people in rural India spend as much as 58.3 per cent of their meagre budget on cereals and substitutes like tapioca, 23.0 per cent on other food and 9.3 per cent on fuel and light, while only about 10 per cent is devoted to clothing and other non-food items.

Estimates like those in Table 1 have been obtained from successive rounds of the NSS, from around 1950, and these have been utilised for investigating (i) the trends in the overall averages of PCE in real terms, and (ii) trends in the disparities in the size distribution of PCE in real terms among the population. These investigations have failed to reach very definite conclusions mainly

Table 2
BROAD PATTERN OF CONSUMER EXPENDITURE BASED ON NSS 13TH ROUND
(FEBRUARY 1963—JANUARY 1964)

Fractile group (per cent)	Percentage distribution of PCE					
	Average monthly PCE (Rs)	Cereals and substitutes	Other food	Fuel & light	Clothing	Other non-food
1	2	3	4	5	6	7
(a) Rural India						
0-10	8 34	58 3	23 0	9 3	2 3	7 1
10-20	11 49	55 3	25 7	8 3	3 0	7 8
20-30	13 69	52 6	26 5	8 6	3 8	8 6
General population	22 32	40 4	29 7	6 6	8 1	15 2
(b) Urban India						
0-10	10 78	47 8	31 5	9 1	1 0	10 6
10-20	14 80	42 6	33 6	8 3	2 0	13 6
20-30	17 29	38 6	34 8	8 2	3 1	15 2
General population	33 92	22 6	36 9	6 4	6 1	28 1

because of the absence of adequate consumer price index numbers in this country. For investigations under (ii), it should be noted, we need separate price index numbers for the population in different levels of living (fractile groups). Very little information is available on this. However, it is known that, for the decade ending 1960-61, probably the price of cereals paid by the poorest decile increased more sharply than that paid by the top-most decile, or in other words, cereal prices discriminated against the poor. Such information on the overall consumer price index number at the national level is only available for 1963-64 for rural India but this merely shows that, for most States, the consumer price index number is lower for the poor than for the rich (Bhattacharya & Chatterjee, 1971 b). On the other hand, West Bengal computes cost of living index numbers by income ranges (Statistical Handbook, 1970) and here we find that, during 1950-1970, the prices have definitely discriminated against the poor, the index almost doubling for persons below Rs. 100 per month and rising by less than 75 per cent for those above Rs. 700 per month. Some price discrimination against the poor is thus a plausible hypothesis.

The proportion of people below 'poverty line': In July 1962, a distinguished study group set up by the Government of India¹ recommended that a **per capita** annual consumption of Rs. 240 at 1960-61 prices (excluding expenditure on health and education, both of which should be provided by the State) should be deemed as the nationally desirable minimum level of consumer expenditure. This has often been taken as "poverty line" and the proportion of population below this standard of consumption has been investigated by different economists. Sometimes the line has been slightly redrawn, say at Rs. 180 or Rs. 200 **per capita** per year at 1960-61 prices. If one wants to see how the proportion of "poor" people is changing over time, it matters

1. The group comprised D. R. Gadgil, B. N. Ganguli, P. S. Lokanathan, M. R. Masani, Ashoka Mehta, Shriman Narayan, Pitambar Pant, V. K. R. V. Rao and Anna Sahēb Sahasrabuddhe.

little which figure is chosen, provided they are not widely different

Minhas (1970) combined the national averages of per capita consumption at 1960-61 prices given by S G Tiwari and the NSS estimates of percentage shares of different fractile groups of the population in total consumer expenditure, and also the NSS ratio of rural to urban consumption. The following were his estimates of the number and percentage of persons in rural India consuming less than Rs 240 per annum at 1960-61 prices

	1956 57	1957 58	1960 61	1961 62	1963 64	1964 65	1967 68
Population below poverty line							
(i) No in million	215	212	211	206	221	202	210
(ii) Per cent of population	65.0	63.2	59.4	56.4	57.8	51.6	50.6
Per capita consumption (Rs) at 1960-61 prices	232	243	258	257	247	266	273

The number of people below the poverty line was rather stable, while the proportion of such people declined steadily. This decline is largely due to the growth in the average per capita consumption in real terms, rather than the slight decrease in the concentration of the NSS based size distributions of consumer expenditure. The above estimates of Minhas have been seriously challenged. Indeed Tiwari's estimates seem to have exaggerated the rise in per capita consumption in real terms. The implicit national income deflator rose from 100 in 1960-61 to only 170 in 1967-68.

The calculations of Ojha (1970), published a little earlier, showed a rise in the proportion of poor people. He

used the norm that a representative Indian requires 2,250 calories **per capita** per day. He next assumed that 66 per cent of this must be obtained from foodgrains, that is, cereals and pulses, in the urban areas; the corresponding percentage was taken as 80 for the rural sector. This meant that foodgrains consumption must be 518 grams/person/day in rural and 432 grams/person/day in the urban areas. These are the standards Ojha used for studying the incidence of poverty. Employing NSS 16th round data for July 1960-August 1961, (and **correcting the NSS estimates of foodgrains consumption for over-reporting** in the light of official estimates of availability), Ojha found that the average level of foodgrains intake per person was below standard for PCE brackets up to Rs. 15-18 per month in rural areas; and these lower brackets included 184 million people, that is nearly 52 per cent of all persons in rural areas. In the urban areas such deficiency existed up to the PCE bracket of Rs. 8-11 per month covering 6 million (that is, about 8 per cent) of the population.²

Dandekar and Rath (1971) estimated that, in 1960-61, about 33 per cent of our rural population lived on diets inadequate even in respect of calories. They arrived at this by a method similar to Ojha's, but there were two differences. First, they used the NSS estimates of consumption of foodgrains (and substitutes) without any correction; and second, they assumed that other items of food would yield about 200 calories **per capita** per day. So they found the diet was just adequate in the PCE bracket of Rs. 13-15 per month, that is, about Rs. 170 per year. Coming to the urban sector, they assumed that urban households secure the minimum calories requirement of 2,250 when their consumption of foodgrains and substitutes reaches 490 grams/person/day. This level of consumption is attained in the PCE range of Rs. 21-24 per month, that is, about Rs. 271 per year, which is almost 60 per cent higher than the cor-

2. For the year 1967-68, Ojha concluded that 70 per cent of the rural population were below the minimum level of foodgrains consumption, but his methodology is extremely doubtful.

responding figure (Rs 170) for rural households. It was accordingly estimated that nearly 49 per cent of the urban population lived on diets inadequate in respect of calories.

In deference to the standard of Rs 240 per person per year proposed by the study group (where no distinction was made between rural and urban areas) Dandekar and Rath revised their rural minimum to Rs 180 per person per annum and their urban minimum to Rs 270 per person per annum, it was then found that about 40 per cent of the rural and about 50 per cent of the urban population lived below the desirable minimum³

Bardhan (1970, 1971), like Minhas (1970), presented a time series for the proportion of "poor" in rural India of the sixties, but his proportions showed a sharp rise over time. The following are the proportions of rural people below $PCE = Rs\ 15$ per month at 1960-61 prices estimated by Bardhan

Year	1960-61	1964-65	1967-68	1968-69
Percentage of 'poor' in the rural population	38	45	53	54
Consumer price index	100	144	200	189

In the absence of consumer price index numbers for the rural poor, Bardhan used the Labour Bureau series of consumer price index number for agricultural labourers (1960-61=100) constructed on the basis of NSS rural retail prices and weighting diagrams obtained from the Second Agricultural Labour Enquiry. In absolute numbers, Bardhan found that the number of rural poor rose from about 135 million to 230 million between 1960-61 and 1968-69. This is "staggering". One can understand the high percentage

3 Their findings about the changes during the sixties depend heavily on some controversial revisions of NSS data for 1967-68. Also their use of the national income deflator as the price index is open to criticism. We do not therefore report on these findings.

for the year 1967-68, which followed two exceptionally bad crop-years, but nothing can explain the high percentage for 1968-69. The consumer price indices used must have been partly responsible. Bardhan defended these indices by computing several alternative indices and showing their agreement. Obviously, *this index was more appropriate* than the national income deflator implicitly used by Minhas.

It should, however, be noted that NSS consumer expenditure estimates for 1967-68 and 1968-69 are based on quick tabulations of unscrutinised data. The estimates for 1967-68 have been utilised by many. The NSS estimate of rural **per capita** consumption in 1967-68 (deflated by the national income deflator with 1960-61 as base) is lower by 8 per cent than the corresponding NSS estimate for 1960-61 while the corresponding official estimate of **per capita** consumption for 1967-68 is about 4 per cent **above** that for 1960-61. This led many like Dandekar and Rath to disbelieve the NSS figure; but other scholars have stoutly opposed this view. Without an intensive study of the discrepancy between the two sources of consumption data, it is not possible to conclude in favour of either. Bardhan stated that if all the PCE-figures in the NSS rural size distribution of PCE for 1968-69 be raised by about 11 per cent (in 1967-68, the difference is about 16 per cent) so that the average PCE equals the corresponding official figure, the percentage of rural "poor" would be only 43, showing a small rise from 38 in 1960-61. The discrepancy between the results of Minhas and Bardhan is partly due to this discrepancy between NSS and official consumption data, and partly to the differences in price deflation procedures.

Bardhan also worked out the costs of the minimum diet recommended for an adult in moderate activity by the Central Government Employees Pay Commission (1957-59). This diet was adopted with a slight modification. It included 15 oz of cereals, 3 oz of pulses, 4 oz of milk, 1.5 oz of sugar and gur, and 1.25 oz of edible oils per day (plus 1 oz of groundnut and 6 oz of vegetables ignored by Bar-

dhan on account of non-availability of retail prices) Using NSS rural retail prices (adjusted to take account of lower prices of non monetised consumption) Bardhan found the cost of this diet at 1960-61 prices and at 1968-69 prices. The cost in rural areas turned out to be Rs 19.79 per person per month in 1968-69 and Rs 9.61 in 1960-61. This approach also led to the same type of conclusion regarding changes in the proportion of "poor" people in rural India.

Finally, Vaidyanathan (1971) presented the following estimates of the proportion of rural population with PCE below Rs 20 per month at 1960-61 prices.

Year	1960-61	1964-65	1967-68
<i>Consumption data used</i>			
NSS	59.5	60.4	67.8
Official series	58.8	56.9	57.8

The second row is based on a combination of the official estimates of **per capita** consumption and the NSS pattern of inequalities. The price indices were computed for each fractile group by using official **wholesale** price relatives for 10 commodity-groups and combining them by NSS based weights. We may note that for 1967-68 the price index (base=1960-61) was about 190 for the first five or six decile groups.

The different investigations do not lead to a definite conclusion regarding the changes in the number and proportion of people below the poverty line. One difficulty is the serious divergence between NSS and official estimates of **per capita** consumption after the mid-sixties. The other is the absence of satisfactory consumption price indices. Bardhan's price index seems to have been the most appropriate, but even this was based on retail prices and did not take account of imputed prices of the non-monetised component of consumption. This might lead to some over-estimation of the rise in cost of living and hence to some overestimation in the proportion of people below the poverty line in the later years. We may add that in a

mimeographed paper based on NSS 13th round (Sept. 1957-May 1958) consumption data for rural India, about 53 per cent of the population were found to fall below the norm of 2,400 calories per person per day (Chatterjee, Sarkar and Paul, 1963). This paper, it may be added, did the calculations in a fairly detailed manner.

Trend in cereals consumption: In order to throw light on the trends in the proportion of poor people, we may look into the estimates of **physical** consumption of cereals per person per day, obtained from different rounds of the NSS (**vide** Table 3). Unfortunately, such estimates are not available for 1967-68 or 1968-69, and the last row in the table relates to an exceptionally bad crop year. Nevertheless, there seems to be some indication that owing to the sharp rise in cereal prices—the rise was sharper than that of the general price level—the level of cereal consumption declined in both the sectors after the 18th round, especially for the poorest 10 per cent of the population. As cereals occupy a crucial position in the budgets of poor households, particularly in rural areas, the lowering of the intake of cereals may be taken as an indication of the deepening of poverty.

Against this, one might cite the evidence in Table 4 and argue that the composition of the cereal baskets seems to have changed for the better, particularly for the poorest section of the population. Indeed, there appears to have occurred shifts towards rice and wheat and away from the other cereals. This might be partly due to the greater rise in the prices of the other cereals than in rice and wheat prices. Interestingly, for the poorest 10 per cent in both the sectors, the decline in the **per capita** intake of cereals was largely confined to the other cereals. It may be recalled that a similar analysis was attempted by the Committee on Distribution of Income and Levels of Living in their final report (1969), but the committee covered the period only up to the 15th round.

Table 3
AVERAGE PER PERSON CONSUMPTION OF CEREALS IN SEERS PER 30 DAYS

NSS round number	Period of survey	Per person consumption in seers per 30 days				Average price per seer (in Rs)	
		Rural India		Urban India		Rural	Urban
		Poorest 10 per cent	General population	Poorest 10 per cent	General population		
1	2	3	4	5	6	7	8
4	April-Sept 1952	9 33	18 51	10 21	12 01	0 46	0 51
5	Dec 1952-March 1953	10 42	19 35	8 16	12 37	0 40	0 51
7	Oct 1953-March 1954	11 90	18 09	11 77	14 24	0 38	0 44
8	July 1954-March 1955	11 11	18 01	10 72	13 93	0 31	0 38
9	May-November 1955	12 19	19 05	13 27	15 06	0 30	0 35
12	March-August 1957	9 03	17 31	9 74	13 98	0 42	0 47
13	Sept. 1957-May 1958	9 91	17 84	10 06	13 63	0 41	0 47
15	July 1959-June 1960	10 38	18 71	9 98	13 37	0 44	0 51
16	July 1960-August 1961	10 30	18 71	10 35	13 48	0 45	0 52
17	Sept 1961-July 1962	12 23	18 81	9 77	13 39	0 46	0 54
18	Feb 1963-Jan 1964	11 98	18 80	11 44	13 47	0 48	0 55
19	July 1964-June 1965	10 23	17 85	9 02	12 63	0 64	0 68
20	July 1965-June 1966	9 07	16 38	8 66	11 74	0 74	0 76

Table 4

AVERAGE PER PERSON CONSUMPTION OF RICE, WHEAT AND OTHER CEREALS IN
SEERS PER 30 DAYS

Group	Type of cereals	NSS round number							
		8	9	13	15	18	20		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
		Rural India							
Poorest 10 p.c.	Rice	2.60	2.81	3.23	2.03	4.43	3.67		
	Wheat	0.21	0.46	0.41	0.51	0.94	0.86		
	Other cereals	7.57	8.80	6.19	5.69	6.61	4.54		
	All cereals	10.38	12.07	9.83	10.38	11.98	9.07		
General population	Rice	8.69	7.94	7.58	8.22	8.66	7.11		
	Wheat	1.51	2.79	2.43	2.78	3.12	2.87		
	Other cereals	7.66	8.19	7.75	7.71	7.02	6.40		
	All cereals	18.62	18.86	17.76	18.71	18.80	16.38		
		Urban India							
Poorest 10 p.c.	Rice	3.82	—	3.41	3.26	3.25	3.20		
	Wheat	1.32	—	1.65	2.98	3.02	2.88		
	Other cereals	5.34	—	4.16	3.74	5.17	2.58		
	All cereals	10.48	—	9.22	9.98	11.44	8.66		
General population	Rice	7.45	—	6.34	5.98	6.14	5.00		
	Wheat	3.35	—	3.91	4.27	4.73	4.65		
	Other cereals	3.10	—	2.96	3.12	2.61	2.09		
	All cereals	13.90	—	13.46	13.38	13.48	11.74		

Identification of the poor. Some data are available regarding the characteristics of the poor in rural India and these throw light on the causes of poverty and suggest policies for amelioration of the poor. In what follows we outline what is known about our rural poor following the discussions by Minhas (1970), Dandekar and Rath (1971) and Vaidyanathan (1971). Some of the poor households may be temporarily disabled or unemployed. Some of them may belong to the tribal groups not sufficiently in the mainstream of the productive process of the national economy. But, as is well known, the disparities in PCE in rural India arise mainly owing to the uneven distribution of land resources. NSS 18th round data indicate that, in 1963-64, about 20 per cent of the rural households had agricultural labour as their major occupation and another 5 per cent were chiefly engaged in non-agricultural labour. About 60 per cent of these households were completely landless, living completely by the personal labour of the members. Nearly three fourths worked as casual labour with no regularity in employment, while the remaining one fourth were attached, that is to say, they worked for a single employer under some sort of contract, for relatively long periods. These latter were, strictly speaking never unemployed, but some of them were virtually bonded labourers.

Using $PCE = Rs\ 15$ per month at 1960-61 prices as the poverty line, Dandekar and Rath estimated that, in 1956-57, about 57 per cent of the agricultural labour households were below the minimum level. Such households, especially the landless among them, form an important segment of the poor in rural India, and the poorer States of the country tend to have a higher proportion of agricultural labour households. However, even below $PCE = Rs\ 100$ per person per annum, such households account for less than half of the poor population. So the remaining poor people must be sought for among the small land operators (sharecroppers and cultivators), particularly those operating less than 5 acres of land. These groups include village artisans

gradually thrown out of traditional occupations. There is evidence that apart from agricultural labourers, craftsmen and production process workers form the poorest occupational group in rural India.

Minhas estimated that, in 1960-61, the total population in agricultural labour households was 66.5 million; 26.5 million out of these belonged to land-operating households. The corresponding estimates for other rural labour are around 15.8 and 6.8 million, respectively. Approximately, 50 million of the agricultural labour population and about 10 million of the other labour population seemed to have lived below the poverty line of Rs. 200 **per capita** per year in 1960-61. As against this, Minhas' estimate of the **total** population below this line was 164 million. Obviously, a majority of the rural poor must have belonged to households other than rural labour. Following an independent route and utilising the NSS 11th round data on the PCE's of households in different size classes of operational holdings, Minhas estimated that in 1960-61 there were 154 million people below this poverty line in households operating up to 5 acres of land; this included 34 million people in households not operating any land. Thus, another 10-15 million of the poor people seemed to have belonged to non-operating small land-owners and to households with operational holdings larger than 5 acres in size.

One demographic factor essential to an understanding of poverty is the size of the household. There is some evidence that the proportion of children and other dependants tends to be higher in bigger households. And there is very clear evidence that as one passes from the lowest PCE-classes to the highest, average household size decreases from 6 to 4 or less, broadly speaking, in the rural sector and from 6 to 2.25, broadly speaking, in the urban sector. Thus, larger households tend to be poorer, even though they may not be marked by old age or disability, but because they are burdened by too many members (probably dependants). Correlational studies on holding size and household size also show that big landholders tend

to have high PCE (naturally there are exceptions) but some small holders are also quite well off as the household size is small. Thus, some single-member households seem to be fairly prosperous. It may be pointed out that for various reasons disparities in PCE are less marked than the disparities in the distribution of land. One of the reasons is the larger household size usually associated with the large holdings.

Little is known about the characteristics of the poor in urban areas. The common feeling is that "the urban poor is an overflow of the rural poor" and belong essentially to the same class. That is to say, the poor in urban areas may comprise those who have drifted into cities but have not been able to secure adequate means of livelihood. The *badli* or casual workers and others not having regular employment may form a good proportion of the urban poor. Their problem is one of employment opportunity. When they have lived for a long time in our towns and cities they do acquire some of the urban characteristics. Unemployment and under-employment are among the manifestations of the problem of poverty. Unfortunately, according to the report of an expert committee, firm estimates of the volume and composition of unemployment and under employment are not available for this country, as it is impossible to reconcile the discrepancies between the data obtained from the National Sample Survey, the census and the employment exchanges (Planning Commission, 1970). In fact no figure for unemployment is mentioned in the Fourth Plan document. Nevertheless, to give an idea of the dimension of the problem, we quote here the figures given in the Fourth Plan Draft.

	2nd Plan (1956-61)	3rd Plan (1961-66)	4th Plan (1966-71)
No (in million) at the start of each Plan	5.3 (about 1.5 in urban)	9.0 (7.0 revised)	9.0-11.0 (about 3 in urban)

The report mentioned above suggested that the incidence of unemployment may be relatively severe among those seeking wage employment and also among the educated, especially those with a bare matriculation or just below it. In the Third Five-Year Plan, the backlog of educated unemployed was estimated to be 1 million, and the number must have grown immensely in the next decade. Most of these people are residents of urban areas. In the rural areas, there is relatively little of overt or outright unemployment, but there is considerable seasonal unemployment or under-employment within agriculture and other household enterprises. Even in the Third Five-Year Plan, the number of under-employed people was put around 15-18 million.

Regional aspects of poverty: The existence of disparities in living standards between regions has also become an important cause of social and political tensions in India. The policies of the government are increasingly judged by their success, among other things, in achieving an equitable regional distribution of the fruits of economic development. Rural-urban disparities in average PCE are naturally well known. Over NSS rounds, the ratio of average PCE in urban areas to the corresponding rural average fluctuated around 140 per cent. But the level of consumer prices is higher by about 15 per cent in the urban sector; so the disparity is smaller in real terms (Bhattacharya and Chatterjee, 1971a). However, the four big cities report a much higher average of PCE than the urban sector as a whole.

Table 5 compares in various ways the standards of living in the rural areas of different States. The indices in col (2) are easily obtained from the State-wise averages of PCE obtained from the NSS. Such indices are available starting from NSS 13th round (Sept. '57-May '58), separately for rural and urban sectors. These indices hardly reveal very clear shifts in the relative standing of individual States, either in the rural or in the urban sector.

Table 5
INDICES OF RELATIVE STANDARDS OF LIVING IN RURAL AREAS OF DIFFERENT STATES

State	Index of average PCE (base all- India rural)		Percentage of population Below poverty line		With inade- quate calorie- intake		Density of the poor
	At cur- rent prices	At all- India rural prices	1960-61	1967-68	5	6	
I	2	3	4	5	6	7	
Rajasthan	103.7	102.3	33	37	13.3	10.4	
Punjab (incl. Haryana)	128.5	122.5	13	28-32	14.0	3.4	
Jammu & Kashmir	125.0	124.0	8	12	13.7	—	
Uttar Pradesh	95.5	101.7	39	61	18.1	12.4	
Madhya Pradesh	104.8	109.6	36.47	61	25.8	13.5	
Bihar	95.5	93.7	38	61-71	37.4	10.8	
Orissa	86.7	88.3	56	64	43.9	14.9	
West Bengal	106.2	91.6	22-42	61-74	44.1	4.0	
Assam, Manipur and Tripura	116.4	108.2	14	21-32	47.7	1.4	
Andhra Pradesh	43.0	91.3	47	39	62.1	11.4	
Tamil Nadu	104.8	96.4	51	59	55.2	9.1	
Kerala	91.3	85.3	42	49	90.8	13.9	
Gujarat	101.7	90.8	25-37	48	19.1	8.6	
Maharashtra	97.4	90.9	40	56	61.0	8.6	
Mysore	91.6	92.4	34	48	26.9	10.9	
all-India	100.0	100.0	38	53	38.0	—	

Note: Cols (2), (3) and (7) are based on NSS 18th round data (Feb '63-Jan '64), Col (6) on NSS 17th round (1961-62), Col. (4) on NSS 16th round and Col (5) on NSS 22nd round.

It has been found, however, that for the rural sector, the overall indices of between-States disparity show some appreciable decline after the early sixties (Chatterjee and Bhattacharya, 1971). This result is based on PCE figures at current prices. If the consumer prices became relatively low (high) in the relatively prosperous (poor) States, this reduction in between-States disparity may be largely illusory. There is little evidence to suggest this. One can average the working class cost of living index numbers by States (Indian Labour Journal, December 1971) and obtain State-wise index numbers for the period 1950-70. These indices do not show any positive relation with State **per capita** incomes or consumptions expenditures. The indices in col (3) are from Bhattacharya and Chatterjee (1971b) and take account of between-State variation in consumer prices and compare the States after eliminating such variation. Such indices are not available for other NSS rounds or for the urban sector.

The figures in cols (4)-(5) are from Bardhan (1971). Taking PCE=Rs. 15 per month at all-India rural 1960-61 prices as the minimum level of living and adjusting for inter-State variation in consumer prices, Bardhan estimated the percentages given in col (4). To obtain the figures in col (5), Bardhan used the State-wise consumer price indices for agricultural labour. The percentages in col (6) are from Dandekar and Rath (1971). They computed the average calorie intake per person per day from the NSS estimates of quantitative consumption of different food items. Doing this for the different PCE=classes, they estimated the proportion of population with calorie intake at less than 2,250 per person per day. The estimates for the rural sector, given here, appear to be implausible, possibly due to the inadequacies of the data utilised and to the rough methods of computation. It should also be noted that the minimum calorie requirement may vary considerably from State to State.

Finally, the densities in col (7) are quoted from Mukherjee (1969a), who looked at the areal distribution of

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Jammu & Kashmir	125.0	124.0	8	12	13.7	—
Uttar Pradesh	95.5	101.7	39	61	18.1	12.4
Madhya Pradesh	104.8	109.6	36-47	61	25.8	13.5
Bihar	95.5	92.7	38	61-71	37.4	10.8
Orissa	86.7	88.3	56	64	43.9	14.9
West Bengal	106.2	91.6	22-42	61-74	44.1	4.0
Assam, Manipur and Tripura	116.4	108.2	14	21-32	47.7	1.4
Andhra Pradesh	93.0	91.3	47	39	62.1	11.4
Tamil Nadu	104.8	96.4	51	59	55.2	9.1
Kerala	91.3	85.3	42	49	90.8	13.9
Gujarat	101.7	90.8	25-37	48	19.1	8.6
Maharashtra	97.4	90.9	40	56	61.0	8.6
Mysore	91.6	92.4	34	48	26.9	10.9
all-India	100.0	100.0	38	53	38.0	—

Note. Cols (2), (3) and (7) are based on NSS 18th round data (Feb '63-Jan '64), Col (6) on NSS 17th round (1961-62), Col (4) on NSS 16th round and Col (5) on NSS 22nd round.

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Finally, the densities in col (7) are quoted from Mukherjee (1969a), who looked at the areal distribution of

poverty over 50 regions. Ranking persons by PCE, he formed a group comprising the poorest 10 per cent of India's rural population and then examined how many of these "poor" people fell in different regions. The weightage (relative frequencies) of these "poor" people will be more (less) than 10 per cent in relatively poor (rich) regions. These weightages called "densities" appear reasonable. However, no account has been taken of the regional variation in consumer prices. Mukherjee prepared a map of India showing clusters of regions relatively homogeneous in respect of level of living and the incidence of poverty.

Indices like those in Table 5 may fluctuate from year to year, especially owing to fluctuations in agriculture. Nevertheless, a broad pattern emerges when indices for several years are examined together. There is marked variation in the incidence of poverty between different States of the country. For the rural sector, Orissa, Kerala and Andhra Pradesh appear to be the poorest States and Assam, Punjab (including Haryana) Jammu and Kashmir and Rajasthan the richest. As regards the urban sector, Kerala, Uttar Pradesh, Mysore and Andhra Pradesh seem to be the poorest among the States and Assam, Bombay (Maharashtra and Gujarat) and West Bengal, the most prosperous, relatively speaking. The disparities in the all-India size distribution of PCE are to a considerable extent due to disparities between States and between rural and urban regions of the same State. Such decomposition of the overall disparity has been attempted by Mukherjee (1969a) [See also Bhattacharya and Mahalanobis (1967)]

III An assessment of the situation and possible ameliorative measures

It has to be granted that our study of the available literature on poverty in India attempted in the last section *does not lead to definitive conclusions*. We cannot say, on the basis of the available studies, whether the number of poor, suitably defined, has increased markedly or not—or even, whether their proportion has increased markedly,

or not. When the expenditures are reckoned at current prices, there are several evidences (for example, Mukherjee 1969b) that the inequality has probably reduced and we have not considered this material in this paper. We have indicated, however, that the consumer prices have discriminated against the poor. Consequently, there are reasons to believe that the real disparity has increased in the country since the end of the First Plan. There is some evidence that inter-State disparity in consumption expenditure has reduced in the recent past at current prices, and also probably in real terms. On the other hand, the shifts in real urban-rural disparity has not been studied in depth. Available studies give some information about the poor, to what socio-economic groups they belong and where they are located but all these data are in very broad terms and do not help us to identify them exactly. We also have information on their consumption and some other characteristics, and a part of these data suggests that their condition has not probably deteriorated very much in the recent past.

From purely technical angle, all this is unsatisfactory. If we had accurate consumer price index numbers for different ordinal groups of the population, we could have examined how exactly the levels of living of several poorer sections of the population have moved over time. This would have enabled us to pose the problems of both absolute and relative poverty simultaneously. For example, a policy of sustained growth of average income ensuring that the rate of growth of *per capita* income of a suitably defined poorest ordinal group is above that of the average would most probably have been acceptable. Secondly, if we had more locational and socio-economic information about the poor, we could have framed our anti-poverty measures better, organising projects where they are needed most, catering to the needs of those who require assistance urgently, and creating employment opportunities tailor-made for the prospective entrants. But our survey shows

that available information and thinking fall short of these requirements.

Does this imply that we would need more information and analysis before concrete anti-poverty projects could be formulated and implemented? In our view, this is certainly not so. The extent of poverty, as the various studies show, is large and widespread, and sufficiently locational, and socio-economic information are available enabling one to start immediate action. Also more information can be collected when the projects are being worked out. The stupendous dimension of the problem of absolute poverty is a help. Since it cannot be solved quickly, little is lost if we start attacking it at once at several points to the extent permitted by our managerial and financial resources.

We may now conclude our paper by examining some of the policy implications of the type being contemplated. The battery of economic policies adopted should ensure that (i) there is a reasonably large overall rate of growth of real per capita income, and (ii) there is a planned reduction of the absolute number of the poor, so that the real inequality in the country progressively reduces. The qualification in the second requirement is necessary because in its absence, the dimension of the effort under (ii) may be so small that efforts under (i) might lead to progressive increase in real inequality. To make the effort under (ii) reasonably large, among possible anti-poverty measures it is necessary to choose those that have maximum saleable output because a sizable part of national output should originate from projects under (ii). For possible projects under (i) primarily undertaken for overall growth, those generating a stream of average income nearest the national average income should be selected. This will ensure that there is no undue increase in real inequality from considerations of growth. On top of this, government redistributive measures and expenditure programmes for furnishing common services like health, education, etc may operate so that the size distribution of

real consumption is much more equal than the size distribution of real personal income before tax. If for needs of growth, it becomes essential to make large outlays on projects with associated average incomes much higher than the national average, for example, expansion of government services, setting up of modern industries or other modern enterprises, setting up of institutions employing highly trained technicians, etc. there should be offsetting projects generating dimensionally equivalent employee compensations in which average earnings are low and below the national average.

As the Planning Commission has pointed out, the present conditions are congenial for implementing extensive anti-poverty projects, and one may hope that many such projects will be undertaken in the near future. The studies we have considered earlier have indicated the nature and extent of the problem, and there is no economic reason why we should not try to eliminate absolute and relative poverty in a large way, by adopting appropriate policies. Our only fear is that we who talk about eradication of poverty have a standard of living much above that of not only the poor but also of the average Indian. Our bureaucracy and intelligentsia as well as our political cadres, including their leaders, are accustomed to have standards of living much above that of the poor. Can this group of people organise and run a sufficiently large anti-poverty programme? What are the incentives?

(The authors are indebted to Mr. Somesh Shah and Mr. Biman Mukherjee for computational assistance.)

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STATISTICS

By Commerce Research Bureau

SOME INDICATORS OF GROWTH

(Per cent)

	Compound annual rate of growth during				Between 1950-51 and 1971-72			
	First Plan (1951-56)	Second Plan (1956-61)	Third Plan (1961-66)	Three Annual Plans (1966-69)	1969-70	1970-71	1971-72	Total annum
Population	1.8	2.1	2.2	2.2	2.3	2.3	2.3	54.9
Agricultural production	4.1	4.0	-1.3	6.2	7.1	7.0	-1.3	88.7
Foodgrains production	4.7	3.4	-2.5	9.1	5.9	8.3	-1.7	92.4
Industrial production	8.2	6.6	9.0	1.5	7.1	4.6	3.1	279.0
Real national income	3.7	4.1	2.5	4.3	5.3	4.7	1.5	110.1
Per capita real national income	1.9	1.9	0.3	2.1	2.9	2.3	-0.9	35.2
Wholesale prices	-3.7	6.2	5.7	7.9	3.7	5.5	4.0	110.7
Consumer prices	-1.0	5.3	6.4	7.8	1.4	5.1	3.2	130.7
Money supply	1.9	5.3	9.6	8.5	5.2	11.8	13.6	302.3
Exports	0.3	1.1	4.6	2.3	4.1	8.6	2.1	65.5
Imports	3.5	7.7	4.6	-4.9	-17.1	2.7	14.0	80.8

AGRICULTURE AREA, PRODUCTIVITY AND PRODUCTION 1949-50 TO 1971 72
(Base 1949 50=100)

Year	Area		Productivity		Production	
	Index	Percentage variation	Index	Percentage variation	Index	Percentage variation
1949-50	100 0	—	100 0	—	100 0	—
1950-51	99 0	-0 1	95 7	-4 3	95 6	-4 4
1951-52	101 7	1 8	95 9	0 2	97 5	2 0
1952 53	105 3	3 5	96 9	1 0	102 0	4 6
1953 54	111 2	5 6	102 8	6 1	114 3	12 1
1954-55	112 3	1 0	104 2	1 4	117 0	2 4
1955-56	115 0	2 4	101 6	-2 5	116 8	-0 2
1956-57	116 0	0 9	107 2	5 5	124 3	6 4
1957-58	114 7	-1 1	101 0	-5 8	115 9	-6 8
1958 59	119 4	4 1	111 8	1 0 7	133 5	15 2
1959-60	120 7	1 1	108 0	-3 4	130 3	-2 1
1960-61	120 8	0 1	117 7	9 0	142 2	9 1
1961-62	123 8	2 5	117 0	-0 6	144 8	1 8
1962 63	124 3	0 4	112 3	-4 0	139 6	-3 6
1963 64	124 0	-0 2	115 4	2 8	143 1	2 5
1964-65	125 3	1 0	127 2	10 2	159 4	11 4

1965-66	122.5	-2.2	108.7	-14.5	133.1	-16.5
1966-67	122.0	-0.4	107.9	-0.7	131.6	-1.1
1967-68	127.8	4.8	126.1	16.9	161.1	22.4
1968-69	125.6	-1.7	127.0	0.7	159.5	-1.0
1969-70	129.1	2.8	132.3	4.2	170.8	7.1
1970-71	129.6	0.4	141.0	6.6	182.7(a)	7.0
1971-72 (a)	129.6	0.0	139.2	-1.3	180.4	-1.3

Compound annual rate of increase
(per cent):

between 1949-50 and 1964-65	1.5	—	1.6	—	3.2
between 1964-65 and 1971-72	0.5	—	1.3	—	1.8
between 1949-50 and 1971-72	1.2	—	1.5	—	2.7

(a) Estimated by CRB.

Sources: For figures from 1949-50 to 1964-65, Ministry of Food, Agriculture, C.D. and Cooperation, *Estimates of Area and Production of Principal Crops in India, 1968-69* (Summary Tables), November 1969 and for figures from 1965-66 to 1968-69, *Estimates of Area and Production of Principal Crops in India, 1969-70* (Summary Tables), November 1970, figures for 1969-70 and 1970-71, Ministry of Agriculture, *Indian Agriculture in brief*, eleventh edition, September 1971.

INDEX OF INDUSTRIAL PRODUCTION 1950 TO 1971
(Base 1960=100)

Year	All industries		Engineering industries	
	Index	Percentage variation	Index	Percentage variation
1950	49.1	—	—	—
1951	54.8	11.6	30.2	—
1952	57.2	4.4	32.2	6.6
1953	58.1	1.6	32.6	1.2
1954	63.4	9.1	45.6	39.9
1955	72.7	14.7	65.1	42.8
1956	78.4	7.8	72.7	11.7
1957	82.7	5.5	77.1	6.1
1958	84.4	2.1	76.7	-0.5
1959	90.3	7.0	84.3	9.9
1960	100.0	10.7	100.0	18.6
1961	109.1	9.1	116.6	18.6
1962	119.7	9.7	141.8	21.6
1963	129.6	8.3	161.5	13.9
1964	140.8	8.6	182.9	13.3
1965	153.8	9.2	213.4	16.7
1966	152.6	-0.8	199.7	-6.4
1967	151.4	-0.8	193.0	-3.4
1968	161.1	6.4	205.3	6.4
1969	172.5	7.1	219.1	6.7
1970	180.5	4.6	225.8	3.1
1971	186.1	3.1	232.3	2.9
January February				
1971	183.1	1.6(a)	—	—
1972	196.9	7.5(a)	—	—

Compound annual rate
of increase (per cent)

between 1950 and 1960	7.4	14.2(b)
between 1960 and 1971	5.8	8.0
between 1950 and 1971	6.6	10.7(b)

(a) Percentage variation over the corresponding period of the previous year

(b) Percentage variation over 1951

- Sources** (1) For figures from 1951 to 1968 Central Statistical Organisation *Monthly Statistics of the Production of Selected Industries of India* (i) for July and August 1967 (Supplement) (ii) for January and February 1969 Vol XXI Nos 1 and 2
- (2) From 1969 to 1971, Central Statistical Organisation *Monthly Bulletin Showing Production of Selected Industries of India and the Index of Industrial Production* various issues
- (3) Composite index for engineering industries has been derived by us

GROWTH OF REAL NATIONAL INCOME: 1948-49 TO 1971-72

Year	Aggregate income		Per capita income	
	Index (1948-49 =100)	Percentage variation	Index (1948-49 =100)	Percentage variation
1948-49	100.0	—	100.0	—
1949-50	102.0	2.0	100.4	0.4
1950-51	102.3	0.3	99.2	-1.2
1951-52	105.2	2.8	100.3	1.1
1952-53	109.4	4.0	102.4	2.1
1953-54	116.0	6.0	106.7	4.2
1954-55	118.8	2.4	107.3	0.6
1955-56	122.8	3.4	108.8	1.4
1956-57	129.6	5.5	112.5	3.4
1957-58	127.8	-1.4	108.7	-3.4
1958-59	137.9	7.9	114.9	5.7
1959-60	140.4	1.8	114.4	-0.4
1960-61	149.8	6.7	119.4	4.4
1961-62	155.0	3.5	120.8	1.2
1962-63	158.1	2.0	120.6	-0.2
1963-64	167.1	5.7	124.7	3.4
1964-65	179.1	7.2	130.9	5.0
1965-66	169.1	-5.6	121.0	-7.6
1966-67	171.7	1.5	120.0	-0.8
1967-68	187.6	9.3	128.3	6.9
1968-69	192.1	2.4	128.6	0.2
1969-70	202.2	5.3	132.3	2.9
1970-71	211.7	4.7	135.3	2.3
1971-72(a)	214.9	1.5	134.1	-0.9

Compound annual rate
of increase (per
cent):

between 1948-49 and
1960-61

— 3.4 — 1.5

between 1960-61 and
1971-72

— 3.3 — 1.1

between 1948-49 and
1971-72

— 3.4 — 1.3

(a) Estimated by CRB.

Sources: For the years 1948-49 to 1954-55, Central Statistical Organisation, *Estimates of National Income*, 1948-49 to 1961-62, January 1963, and for the years 1955-56 to 1969-70, *Estimates of National Product*, 1960-61 to 1969-70, May 1971 and figures for 1970-71, Newspaper reports.

MECHANISM OF PRICE INCREASE

Year	Money supply		Real national income		Wholesale prices	
	Rs crores (average for the year)	Percentage variation over previous year	Index (1948-49 =100)	Percentage variation over previous year	Percentage variation over previous year	Percentage variation over previous year
	1	2	3	4	5	6
					(Base 1952-53 = 100)	
1950-51	1,856	—	102.3	0.3	111.8	—
1951-52	1,873	0.9	105.2	2.8	118.0	5.5
1952-53	1,752	-6.5	109.4	4.0	100.0	-15.3
1953-54	1,765	0.7	116.0	6.0	101.2	1.2
1954-55	1,850	4.8	118.8	2.4	97.4	-3.8
1955-56	2,049	10.8	122.8	3.4	92.5	-5.0
1956-57	2,223	8.5	129.6	5.5	105.3	13.8
1957-58	2,334	5.0	127.8	-1.4	108.4	2.9
1958-59	2,395	2.6	137.9	7.9	112.9	4.2
1959-60	2,551	6.5	140.4	1.8	117.1	3.7
1960-61	2,725	6.8	149.8	6.7	124.9	6.7
1961-62	2,844	4.4	155.0	3.5	125.1	0.2

(Base: 1961-62 = 100)

1961-62	—	—	—	—	100.0	—
1962-63	3,098	8.9	158.1	2.0	103.8	3.8
1963-64	3,476	12.2	167.1	5.7	110.2	6.2
1964-65	3,866	11.2	179.1	7.2	122.3	11.0
1965-66	4,236	9.6	169.1	— 5.6	131.6	7.6
1966-67	4,641	9.6	171.7	1.5	149.9	13.9
1967-68	5,008	7.9	187.6	9.3	167.3	11.6
1968-69	5,428	8.4	192.1	2.4	165.4	— 1.1
1969-70	6,009	10.7	202.2	5.3	171.6	3.7
1970-71	6,736	12.1	211.7	4.7	181.1	5.5
1971-72	7,552	12.1	214.9	1.5	188.4	4.0

Between 1950-51 and 1971-72
(per cent)

(i) Total rise	—	302	—	110	—	111
(ii) Compound annual rate of increase	—	6.8	—	3.6	—	3.6

Sources: (i) For cols (1) and (5), Reserve Bank of India, Report on Currency and Finance, various issues and Reserve Bank of India Bulletin, June 1972.

(ii) For col (3), see Table 4 in this section.

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